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THE OIL WEEKLY

Devoted Exclusively To The Production and Transportation of Oil and Gas

Engineering News Statistics

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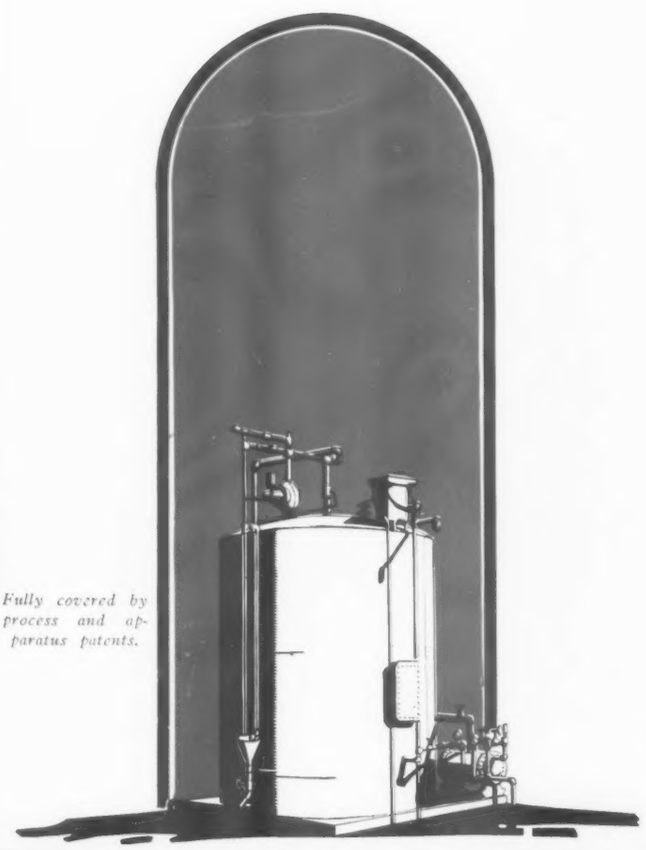

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February 6, 1931

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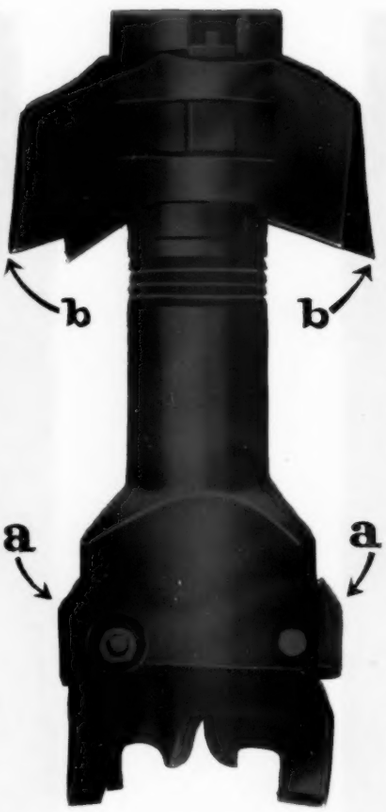
EDITORIAL INDEX, PAGE 19

the FASTEST DIGGING TOOL *and why*

THE B-2 DRILLING BIT *and* M-5 REAMER

It is a well known fact that in drilling an oil well, all things being equal, a smaller diameter bit will ordinarily make hole faster at the same depth than a bit that is considerably larger. As a matter of fact, it has been demonstrated times without number, that a 17-inch B-2 cutterhead will cut more hole at a given depth than a 22-inch B-2 cutterhead on the same string.

In the B-2 Drilling Bit and M-5 Reamer illustrated, Globe has combined the fast digging ability of the smaller cutterhead with the full-gauge-hole-making ability of the larger reamer above it, to produce the fastest digging tool for everything up to rock formations.



As the diameter being cut by the pilot bit at "a" is considerably less than that being cut by the reamer at "b," the pilot bit of this size makes hole faster than would be possible with a full-hole size bit alone. On the other hand, the formation being cut by the larger size reamer is made so much easier to break down that bringing the hole to full gauge in this manner does not in the least retard the speed of the pilot bit.

Drillers, field men, and roughnecks in every active field in the world know the B-2-M-5 combination and its consistent performance. The criterion of hole-making qualities in all fields is—"nearly as good as the B-2."

M-5 Reamers can be used in combination with all sizes of B-2 Drilling Bits from 10½" to 27", inclusive. Some of the combinations recommended for fast drilling are:

Size Hole	B-2 Cutterhead	M-5 Reamer
27"	19"	27"
22"	17"	22"
19"	13"	19"
15"	10⅝"	15"

Write us for complete information on this fast, full-gauge hole-making combination, and illustrated Bulletin No. 12-A.

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GLOBE OIL TOOLS CO.,

Send me Bulletin No. 12-A and complete information regarding the B-2-M-5 combination.

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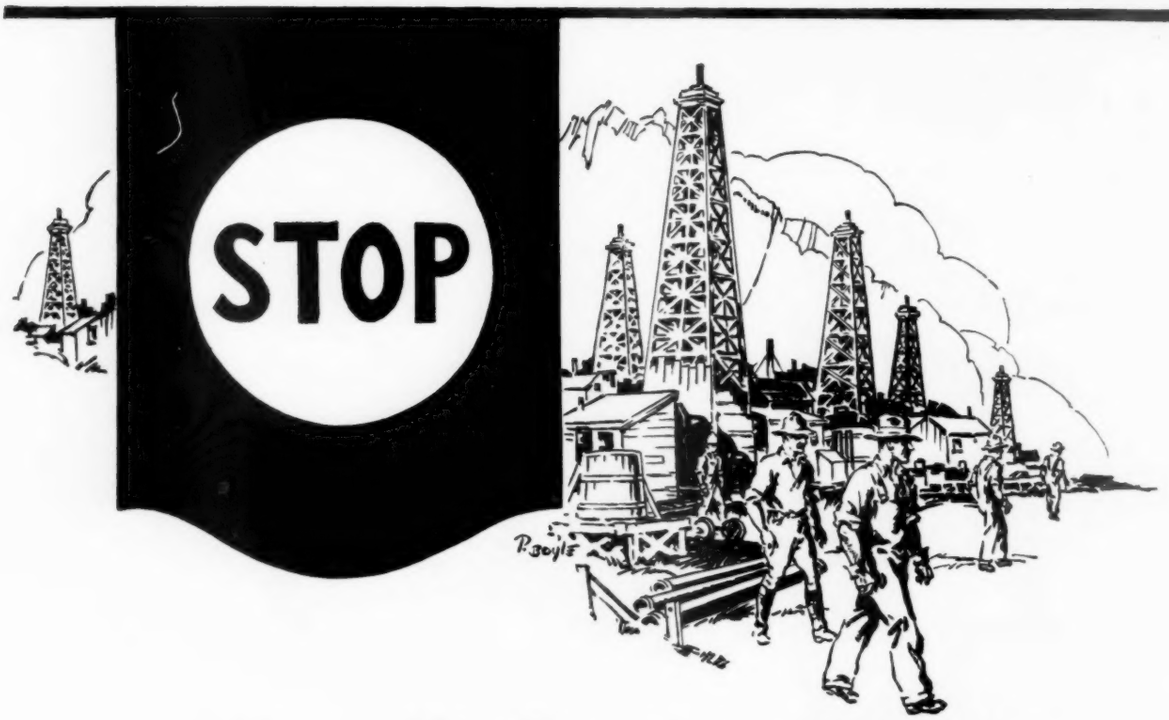

One Defective Valve May Tie Up Production For Hours

whether it be in the field, a main line, or in refinery service. And the cost of repairs is only a part of the loss. For until they are made production stops while *overhead* goes on.

Darling Gate Valves have made, are making and will continue to make remarkable records for long service, dependability and economy.

They operate easily at all times. They seldom need repairing—or replacing—but should repairs be necessary, the Darling Gate Valve can be quickly reconditioned by inserting new parts with every assurance that they fit without adjustment.

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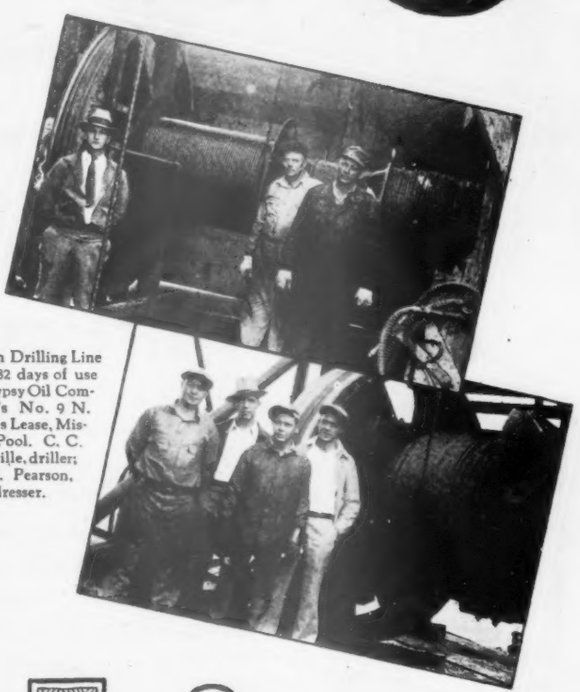
The nearest JARECKI store—district headquarters for Union Wire Rope—is at your service.



Union Drilling Line after 82 days of use on Gypsy Oil Company's No. 9 N. Barcus Lease, Mission Pool. C. C. Lindville, driller; E. M. Pearson, tool dresser.

8300 feet of ⅞-inch Union Wire Rope on Big Lake No. 131. H. M. Bushager, driller; Claude Bosworth, tool dresser; L. C. McDonald, tool dresser; Mont Bosworth, driller.

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Each head has its own injector and mixing chamber

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Fine balance

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Heads have renewable seats

All seating surfaces completely protected

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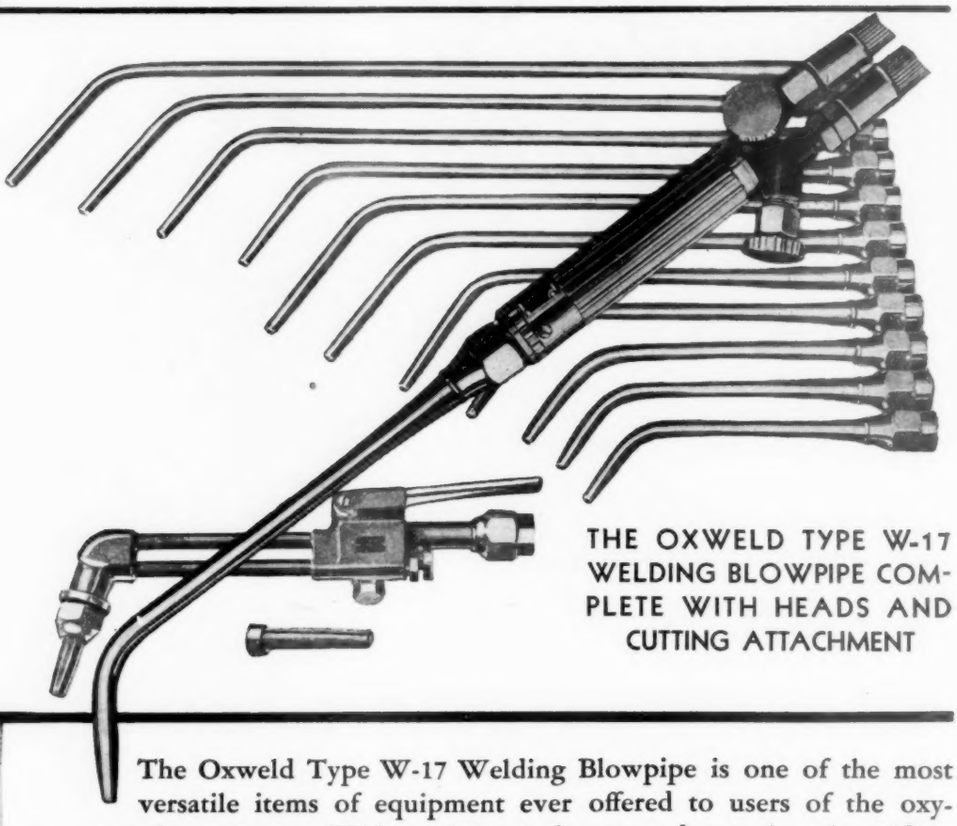
Typically Oxweld



THE OXWELD TYPE W-17 WELDING BLOWPIPE COMPLETE WITH HEADS AND CUTTING ATTACHMENT

The Oxweld Type W-17 Welding Blowpipe is one of the most versatile items of equipment ever offered to users of the oxy-acetylene process. With cutting attachment and extra-length welding heads, it is adaptable to a range of work which, until now, has required three distinct blowpipes.

Fitted with the CW-17 Cutting Attachment, the W-17 performs efficiently over the average range of oxy-acetylene cutting. The Cutting Attachment is rugged and dependable, and incorporates the Oxweld low-pressure injector principle.

For extremely heavy welding or heating operations extra-length welding heads are available. These increase the overall length of the W-17 Blowpipe to 24, 26, 28 or 30 inches.

The trained welder, with the Oxweld Type W-17 Blowpipe, can perform practically every operation in the oxy-acetylene process.

Write for a descriptive booklet. Better yet, let us demonstrate the W-17 Blowpipe for you.

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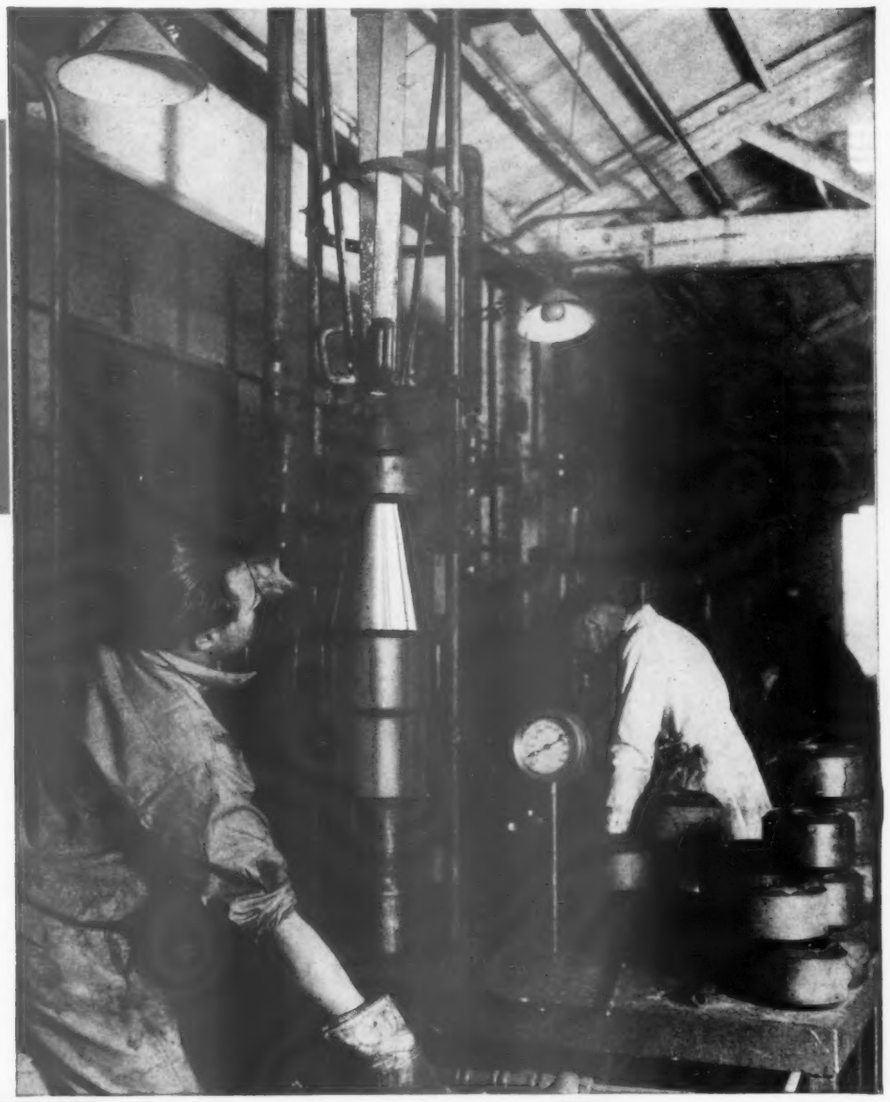

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As an added precaution, every Bettis Protector is completely expanded at the factory and observed for flaws or other imperfections. The above photograph shows the special expander. The photograph to the left shows the trimming machine that cleans the Protector ready for shipment.

It costs more to manufacture Bettis Protectors. The extra service in the field and the saving to the operator well justifies these extra precautionary methods that are routine in the Bettis factory. Ask for catalog.

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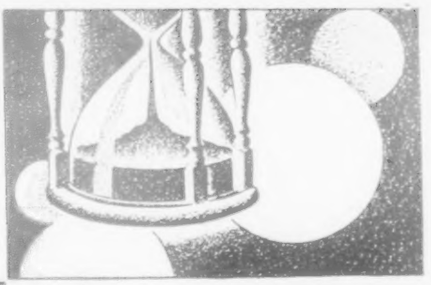
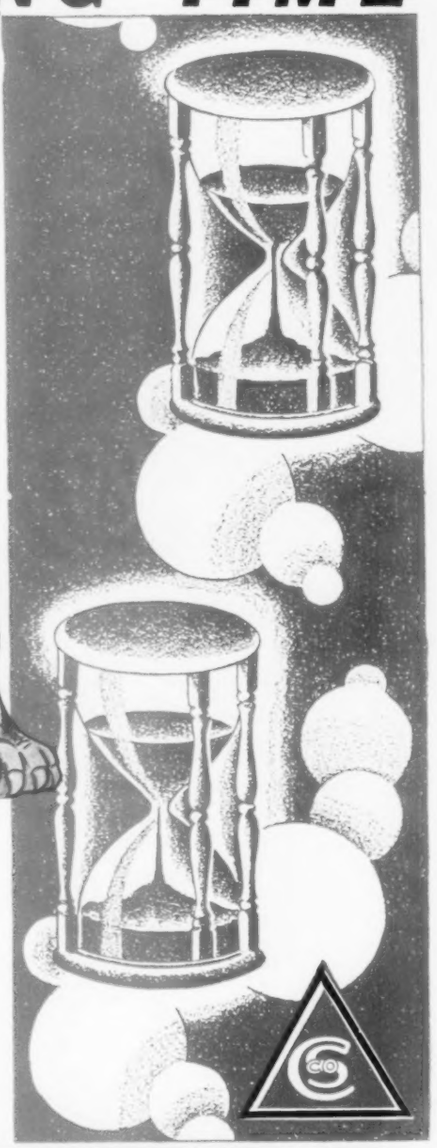
(ON THE YELLOW REELS)



REDUCE DRILLING TIME



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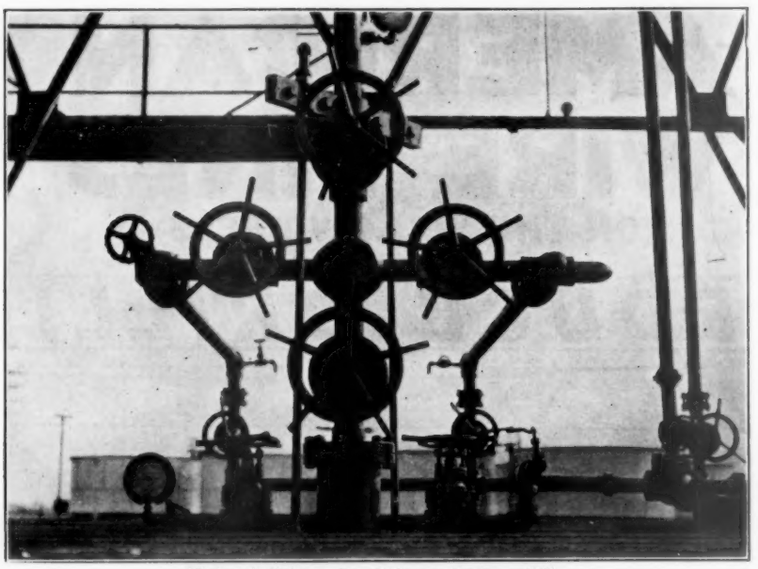

Walworth Christmas Tree Valves at Kettleman Hills
furnished by Petroleum Equipment Company

Specify

WALWORTH
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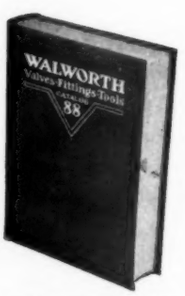
FITTINGS
AND TOOLS

for OIL

A NEW FACTOR OF SAFETY IN PRODUCTION

• Where high pressures and other conditions at the top of the well demand extra safety and operating precautions, production engineers are turning to Walworth Sigma Steel Christmas tree valves and fittings. • This hook-up at a Kettleman Hills well is typical of a Walworth installation. • Here are distinctive features of the Walworth Drilling Gate and Line Gate valves:

• Bodies of Walworth Sigma Steel—a factor which has raised steel valve castings to a new standard of excellence.



Send for a copy of the new Walworth Catalog

• Tiller type handwheels, to facilitate ease and speed in handling.

• Legs for the valves to stand on, making it easy to handle them in the field.

• You'll know a Walworth hook-up by the dark green valve bodies and bright red handwheels.

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FEATURES?

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Catalogue EG-40 describes the construction and operating features of Ironcase Meters. The latest revised edition of this book is ready to be mailed to you upon request.

All screws fastening the top, back and front to the body of Metric Ironcase Meters are machined by us from high tensile strength nickel steel, so that they will neither stretch in service nor come loose from the effects of temperature changes in exposed locations . . . Valves designed in precise relation to the dimensions of the inlet and outlet channels—provide large capacity without pulsation. For 20B and larger meters, a special bakelite composition minimizes friction and ends all squeaks . . . Valve motions are designed to suit the capacity range of meters . . . Wear is reduced to a negligible minimum—and the valves are in time with the diaphragms . . . The adjustable tangent (patented) eliminates the use of a soldering iron in making adjustments . . . In like manner have all other parts of the Ironcase Meter been perfected over a period of sixty years, until it may be rightly termed the all-feature meter.

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Warp of the highest known type of cotton yarn, instead of the all-hair warp use in "Camel Hair" Brand. This exceptional cotton warp gives Camelcot immense tensile strength. Eliminates excessive stretch and other belt troubles common to heavy wells. You will like the way Camelcot stays on the job, minimizing shut-down time.

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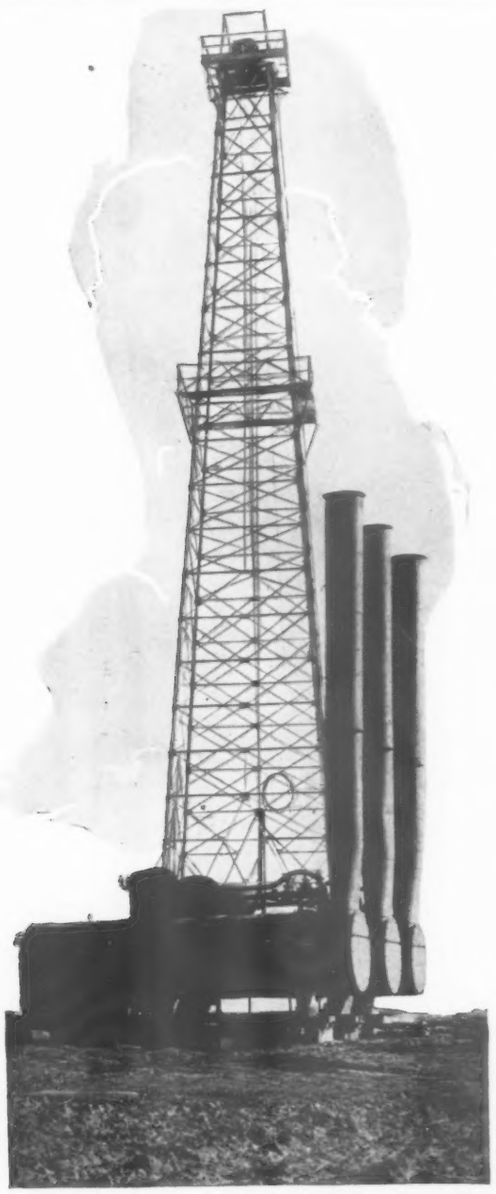
Faster Drilling
is the Order of the Times



FASTER drilling is the accomplishment of every Elesco superheater application.

Where four 125-horsepower boilers carrying 350 lb. pressure were required, three boilers of 125 horsepower and 250 lb. pressure, equipped with Elesco superheaters, are now operating the same rig at faster speed.

Total elimination of line condensation, more nearly boiler pressure delivered to the engine and pump and greater flexibility of control makes this faster drilling possible.

To secure this greater return per dollar of investment and per dollar of wages requires the utilization of Elesco superheater-equipped boilers.

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Kewanee Boiler Corporation, Kewanee, Ill.
Lucey Manufacturing Corp., Chattanooga, Tenn.
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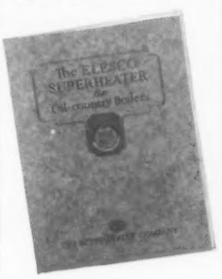
Let us send you a copy of Bulletin T-20, describing Elesco superheaters and giving results of comprehensive field tests. The coupon will bring it.



THE SUPERHEATER COMPANY,
60 East 42nd Street, New York, N. Y.
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Please send me a copy of Bulletin T-20, "The Elesco Superheater for Oil-Country Boilers."

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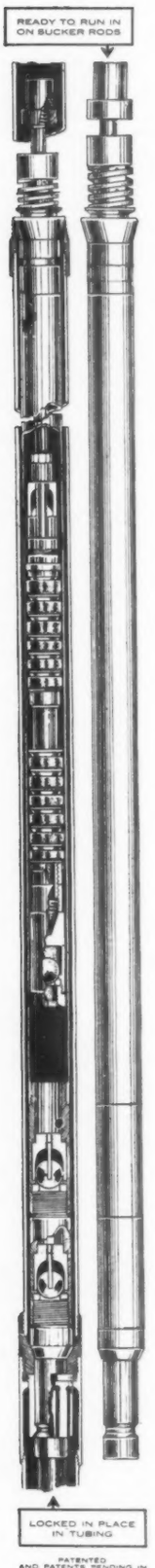
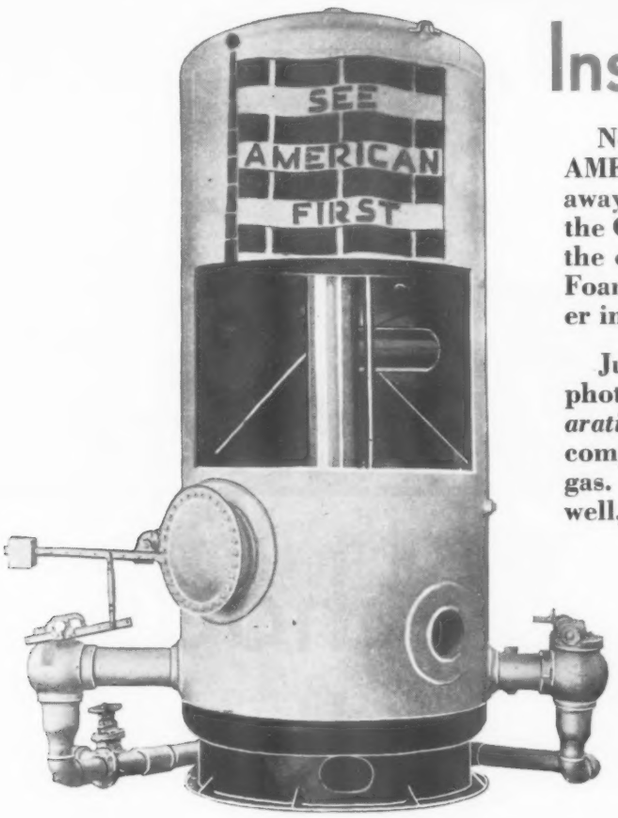
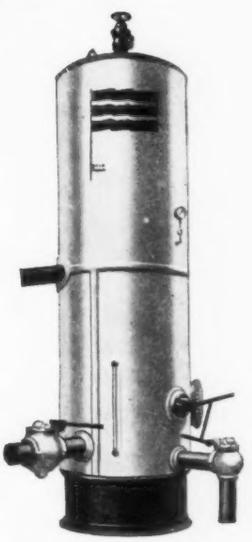




Inside and Outside

Now you may see what's on the inside of the AMERICAN Separator. Here is a view of a cutaway of the Separator that was on display at the Oil Show. You may see a large oil chamber, the oversize float that's on the inside, the Disc Foam Baffle, and the Centrifugal Force Breaker in the oil chamber.

Just above, but not distinguishable in this photograph, is *the last word in Oil and Gas Separation*—The B. S. & B. Spray Condenser, that completely strips the remaining oil from the gas. Inside, there is efficiency. Outside, as well, with lower fittings that allow a greater convenience in hook-up and savings in time and pipe materials. And besides, these Separators may be rolled like a barrel, when being transported, for there's nothing to break off or become damaged.



May be rolled like a Barrel

The Improved AMERICAN

Oil and Gas Separators

Equipped with the B. S. & B. Spray Condensers

If you are interested in efficiency, you'll find it in this Improved Separator. The inside man-size float is an important feature, for it works more automatically, assures quicker, and more positive operation in opening and closing the oil valve, and thereby tends to prevent gas from leaking into the stock tanks. It assures a far greater capacity than the small outside float that is now obsolete, as far as AMERICAN Separators are concerned. This float, the B. S. & B. Spray Condenser, and the other features provide ample efficiency.

If you are interested in strength, you'll find it in these Separators, manufactured of flange quality steel of extra thickness with a factor of safety of four; semi-eliptical heads one-eighth inch thicker than the shell, as recommended by the A. S. M. E. Boiler Code. Every AMERICAN is hydrostatically tested to twice the maximum working pressure; electric automatically welded seams equaling the strength of the plate. The care used in the selection of raw materials and in the fabrication of the Improved AMERICAN is your assurance that it will meet the most severe field conditions to which it may be subjected.

AMERICAN
EQUIPMENT
Always Dependable

B S & B Products

We'd like to SHOW YOU what the AMERICAN would do for you, and should like to tell you more about it. May we do so through a Representative, a letter or literature? Please address Dept. AA-15

American Tank & Equipment Corp.

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OKLAHOMA CITY — OKLAHOMA

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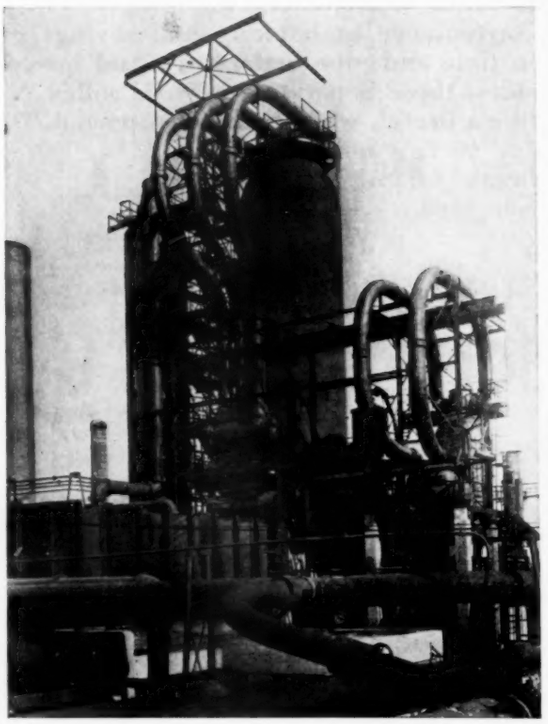
GULF

Modern



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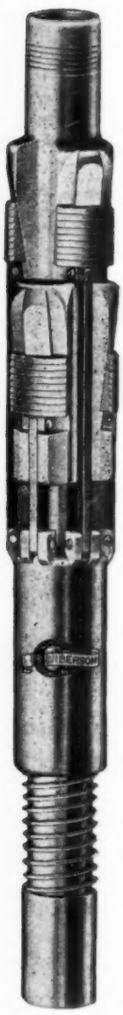

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SPENCER W. ROBINSON, *Editorial Director*

J. KENT RIDLEY, *Managing Editor*

NEW YORK: Room 613, 250 Park Avenue, Dick Swinsky, Manager.

PITTSBURGH: 703 Park Bldg., W. W. Pigue, Manager.

CHICAGO: 624 So. Michigan Ave., O. R. Waller, Manager.

LOS ANGELES: 416-417 Haas Bldg., W. E. Green, Manager.

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THE OIL WEEKLY

VOLUME 60, NO. 8 FEBRUARY 6, 1931

Proposed Texas Law Would Conserve Gas Energy

Railroad Commission would be empowered to name gas-oil ratio and given additional powers of enforcing its rules

AUSTIN, Texas.—A bill has been introduced in the Texas legislature by Representative Graves of Georgetown and Long of Wichita Falls, to be an amendment of Article 6014 of the revised statutes of Texas of 1925, originally amended by Chapter 313, which if passed, will give the Texas Railroad Commission power to control the gas-oil ratio of each well in the state. An important provision of the proposed bill provides that no well shall be allowed to flow unless a market outlet, as provided by other sections of the bill, shall be available.

Section 1 provides that waste of natural gas be prohibited; Section 2 defines the terms natural gas and crude oil, and indicates that power of execution of the law rests with the Texas Railroad Commission; Section 3 provides for the amendment of Article 6014 of the Revised Statutes, to read as follows:

"Neither natural gas nor crude oil shall be produced, transported, stored or used in the State of Texas in such manner or under such conditions as to constitute waste . . ." Then the term waste includes escape into the air; flowing more than is allowed; burning other than for heat, light or power; underground waste; wasteful utilization of natural gas; permitting a natural gas well to burn wastefully; creating unnecessary fire hazards; and the storage of crude oil in quantities exceeding the reasonable current market demand or reasonable demand for refinery purposes.

Section 4 provides that natural gas shall be deemed wasted unless the gasoline content shall be extracted and the residue gas used for heat, light or power, or returned to an oil or gas formation for the purpose of building up the pressure.

Section 5 defines the uses of natural gas as follows: for domestic or industrial uses; for the manufacture of carbon black, provided there is a market for it; where not used by a gasoline plant, it is to be injected into an oil or gas formation.

Section 6 provides for the amendment of Article 6008 of the Revised Statutes, to read that any gas well shall be shut-in until such time as a market is found for both oil and gas production thereof; that while drilling a well and encountering gas production, further progress shall be unlawful until such time as proper facilities are provided for handling the gas production, including market for same; that the owner of such a well may drill through the gas producing formation provided he does so without loss of gas or other waste.

Gas-Oil Ratio

Section 7 provides that any oil well that also produces gas, shall not be allowed to produce gas above the fixed oil-gas ratio for that pool or area; that a proper meter be installed to correctly measure the flow of gas; that said charts be preserved for a year, and file same with the commission before the twentieth of each month.

Section 8 provides that the oil-gas ratio be 500 feet of gas per day of 24 hours for each barrel of oil.

Section 9 provides that it shall be the duty of the commission to fix a gas-oil ratio for each field or pool.

Section 10 provides that gas returned to a formation shall not be produced from another well except according to the proper gas-oil ratio fixed by the commission for that field or area.

Section 11 gives the commission power and authority, and commands the commission to observe this power and authority, to enforce the gas-oil ratio law.

Section 12 prescribes the duties of every oil and gas operator, and holds him liable to the penalties of the law.

Section 13 provides that any violation shall be punishable as provided by Article 6036 of the Revised Statutes, as amended by Chapter 313; that anyone dissatisfied with the law shall appeal for relief in the manner provided in Section 6 of Chapter 313.

(*Continued on page 72*)

Oil Supply Factors Reflect Production Control

By H. J. STRUTH
Staff Economist

Receipt of final figures on gasoline consumption for the year 1930, showing the domestic consumption at approximately 396,000,000 barrels, recalls an estimate which appeared in THE OIL WEEKLY of February 21, 1930, wherein it was stated that the domestic gasoline demand for the year would probably amount to 397,000,000 barrels. It was also shown in this estimate that the expected foreign demand would amount to about 75,000,000 barrels, bringing the grand total consumption up to 472,000,000 barrels. Competition in foreign markets, however, resulted in a demand for only 66,000,000 barrels, a shortage of 9,000,000 barrels, which made up an actual total consumption for last year of 462,000,000 barrels. Projecting the demand for gasoline outside of the United States is fraught with many difficulties, but it is seen from the facts at hand that it is possible to very closely approximate the domestic demand, many months in advance—even during a year of depression.

BUREAU of Mines statistics for December continued to reflect efforts to control the supply of crude and refined products, with further declines recorded in crude production and stocks. Daily average crude production amounted to 2,161,000 barrels, compared with 2,272,000 barrels in November, a decline of 111,000 barrels a day. Compared with December, 1929, the daily average production of crude shows a decline of 449,000 barrels a day. All of the leading producing states recorded declines in crude production during December. Daily average production of Texas fell below the 700,000 barrel mark for the first time since June, 1928; California, below 600,000 barrels for the first time since November, 1924; Oklahoma, below 500,000 barrels for the first time since September, 1926.

As a result of the sharp declines recorded in crude production during December, the rate of production fell below the rate of demand to the extent that stocks of crude declined about 5,400,000 barrels. Compared with December, 1929, stocks of crude show a decline of more than 28,000,000 barrels.

Runs to stills of United States refineries showed a further slight decline during December, while the demand for gasoline was about 9 per cent below the total for November. Compared with December, 1929, however, the demand for gasoline showed a gain of 7 per cent, including foreign demand. Domestic demand for gasoline shows a gain of about 7 per cent over December, 1929. Domestic gasoline demand for the year ending December 31, aggregated 395,560,000 barrels, a gain over the preceding year of about 5 per cent. Imports of gasoline for the year amounted to 16,927,000 barrels, or nearly double the quantity imported in 1929; the gain amounting to 92 per cent.

Drilling operations also recorded a considerable decline during 1930; completions dropping from 13,125 wells to but 10,512 wells, a decline of 20 per cent under 1929. Initial oil production, however, showed a material gain over 1929, increasing from 6,404,000 barrels to 9,804,000 barrels, a gain of 53 per cent over 1929.

Stocks of all oils showed a decline during the year of nearly 24,000,000 barrels.

Prices of crude and refined products showed practically no improvement during December, closing the year at the lowest level. This reflects the unsatisfactory situation that prevailed during a greater part of last year, which resulted in an unwieldy stock situation.

With stocks of both crude and refined oils showing material improvement at the close of the year, there is every reason to believe that the immediate future of the market holds brighter prospects than for some time past.

Following is a summary of the Supply and Demand Statistics as compiled by the Bureau of Mines for the month of December and for the year 1930:

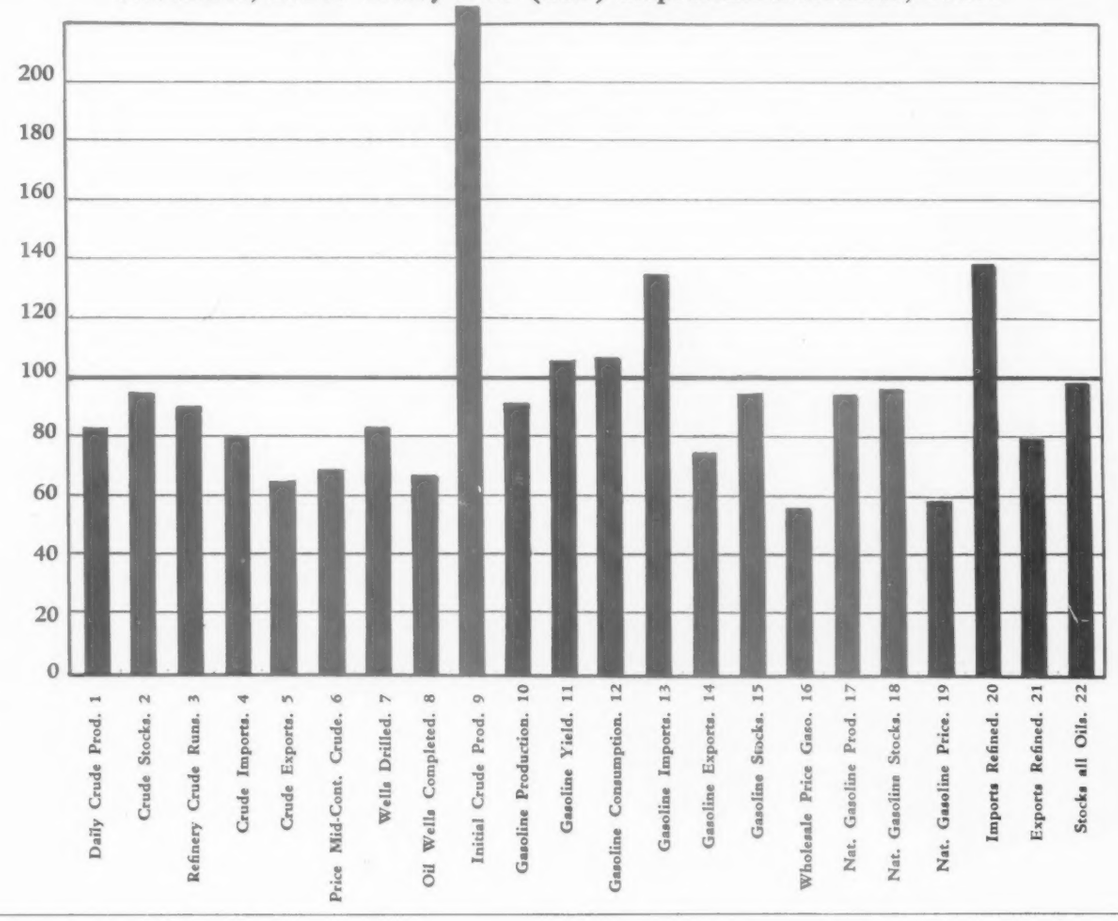
Supply and Demand of All Oils

(Including wax, coke and asphalt in thousands of barrels) of 42 U. S. Gallons)

	Dec. 1930	Nov. 1930	Dec. 1929	Jan.-Dec. 1930	Jan.-Dec. 1929
NEW SUPPLY:					
Domestic production:					
Crude petroleum	66,985	68,174	80,917	896,265	1,007,323
Daily average	2,161	2,272	2,610	2,456	2,760
Natural gasoline	4,198	4,238	4,457	51,736	52,271
Benzol	183	187	238	2,689	3,055
Total production ..	71,366	72,599	85,612	950,690	1,062,649
Daily average ..	2,302	2,420	2,762	2,605	2,911
Imports:					
Crude petroleum	4,727	4,467	5,886	62,129	78,933
Refined products ...	3,310	2,807	2,403	43,486	29,777
Total new supply, all oils	79,403	79,873	93,901	1,056,305	1,171,359
Daiy average	2,561	2,662	3,029	2,894	3,209
Increase in stocks, all oils	*6,936	*1,488	3,458	*23,296	68,156
DEMAND:					
Total demand	86,339	81,361	90,443	1,079,601	1,103,203
Daily average	2,785	2,712	2,918	2,958	3,022
Exports:					
Crude petroleum ...	1,339	1,765	2,089	23,706	26,411
Refined products ...	9,729	7,776	12,321	132,960	136,719
Domestic demand	75,271	71,820	76,033	922,935	940,083
Daily average	2,428	2,394	2,453	2,529	2,576
Excess of daily average domestic production over domestic demand	†126	26	309	76	335
STOCKS (end of month):					
Crude petroleum:					
East of California ..	368,051	373,965	387,396	368,051	387,396
California‡	144,746	144,205	153,455	144,746	153,455
Total crude	512,797	518,170	540,851	512,797	540,851
Natural gasoline at plants	578	596	604	578	604
Refined products	152,495	154,040	147,711	152,495	147,711
Grand Total Stocks, All Oils	665,870	672,806	689,166	665,870	689,166
Days' supply	239	248	236	225	228
Bunker oil (included above in domestic demand	3,859	3,794	4,100	50,764	52,278

*Decrease. †Deficiency. ‡Includes residual fuel oil.

Salient Oil Industry Factors for December, 1930, Expressed in Per Cent of November, 1929. Heavy Line (100) Represents December, 1929.



Oil Industry Barometer

Index of Salient Factors—Current and Cummulative, December, 1930

	Factors—	This Month Last Year	This Month This Year	This Month Index (a)	12 Months Ending Dec. 31 This Year	12 Months Ending Dec. 31 Last Year	12 Months Ending Dec. 31 Index (a)
1	Daily Average Crude Production (Thous. Bbls.)	2,610	2,161	83	2,760	2,456	89
2	Total Crude Stocks (Thous. Bbls.)	540,851	512,797	95	540,851	512,797	95
3	Refinery Crude Runs (Thous. Bbls.)	80,663	71,581	89	987,708	927,447	94
4	Crude Imports (Thous. Bbls.)	5,886	4,727	80	78,933	62,129	79
5	Crude Exports (Thous. Bbls.)	2,089	1,339	64	26,401	23,706	90
6	Posted Price 36 Gravity Mid-Continent Crude (Bbl.) (b)	$1.45	$ .95	66	$1.36	$1.21	89
7	Wells Drilled*	1,791	1,479	83	23,463	19,356	82
8	Oil Wells Completed*	978	650	66	13,125	10,512	80
9	Initial Crude Production* (Thous. Bbls.)	433	979	226	6,404	9,804	153
10	Gasoline Production (Thous. Bbls.)	37,734	34,352	91	439,393	441,534	100
11	Gasoline Yield—Average Per Cent of Crude (d)	41.08	42.95	105	39.19	42.03	107
12	Domestic Gasoline Consumption (Thous. Bbls.)	27,181	29,094	107	375,999	395,560	105
13	Gasoline Imports (Thous. Bbls.)	716	964	135	8,834	16,927	192
14	Gasoline Exports (Thous. Bbls.)	6,005	4,386	73	62,059	65,621	106
15	Gasoline Stocks at Refineries (Thous. Bbls.)	43,261	40,541	94	43,261	40,541	94
16	Refinery Price U. S. Motor Gasoline, Group 3 (Cents) (c)	7¼	4	55	7.7	6.3	82
17	Natural Gasoline Production (Thous. Bbls.)	4,457	4,198	94	52,271	51,736	99
18	Natural Gasoline Stocks (Thous. Bbls.)	604	578	96	604	578	96
19	Price Grade "A" Natural Gasoline, Group 3 (Cents) (c)	6⅝	3¾	57	7	5½	78
20	Imports all Refined Oils (Thous. Bbls.)	2,403	3,310	138	29,777	43,486	146
21	Exports all Refined Oils (Thous. Bbls.)	12,321	9,727	79	136,719	132,960	97
22	Total Stocks all Oils (Thous. Bbls.)	689,166	665,870	97	689,166	665,870	97
	Weighted Index of Supply	.....	.....	111	.....	.....	82
	Weighted Index of Demand	.....	.....	112	.....	.....	98
	Weighted Index of Prices	.....	.....	59	.....	.....	83

*Exclusive of Rocky Mountain area.
(a)—Last Year—100.
(b)—Weighted Average.
(c)—Monthly Average.
(d)—Straight run and cracked gasoline only.

Drilling In Pacific Requires Substantial Foundation

By LAWRENCE B. COLLINS
Marine Engineer, Barnsdall Oil Company of California

THERE have been oil wells drilled in bodies of water before—there have been oil wells drilled in coves of the Pacific before—but when Barnsdall Oil Company and Rio Grande Oil Company and other operators started to drill in the Pacific ocean off of Elwood Terrace where the ocean was at times treacherous and the waves high—well, it was "just another problem," for the marine engineer to drill in 40 feet of rough water.

The progress made in drilling for oil and gas by the Barnsdall Oil Company and Rio Grande Oil Company on state permits and leases at Elwood in Santa Barbara County, California, has called for two important problems to be solved: first, longer access piers; second, an economical and safe foundation for the derricks.

The first problem of piers has been improved upon to where piers now, for the most part, are of steel construction, the longest one measures slightly over 1900 feet in length and extends out into water over 40 feet deep.

The construction of these access roadway piers and necessary service decks has offered a multitude of problems in bracing methods and rock penetration. These have been so completely solved that the piers as completed today have great strength and very slight movement, even when heavy swells are rolling. In some cases the decks of these piers are about 60 feet above the sea bottom.

It has been the policy of R. A. Broomfield, president of Barnsdall Oil Company of California, Elwood's largest operator, to provide ample strength in all marine well foundations to withstand all possible stress of storm and earthquake disturbances. These men have constantly borne in mind that a failure of a foundation might cause immense damage to the field and to adjacent beaches.

Safety Precautions

In accordance with this policy, all Barnsdall foundations are carried into firm shale footing and braced or stabilized to resist maximum forces of storm, wind and wave.

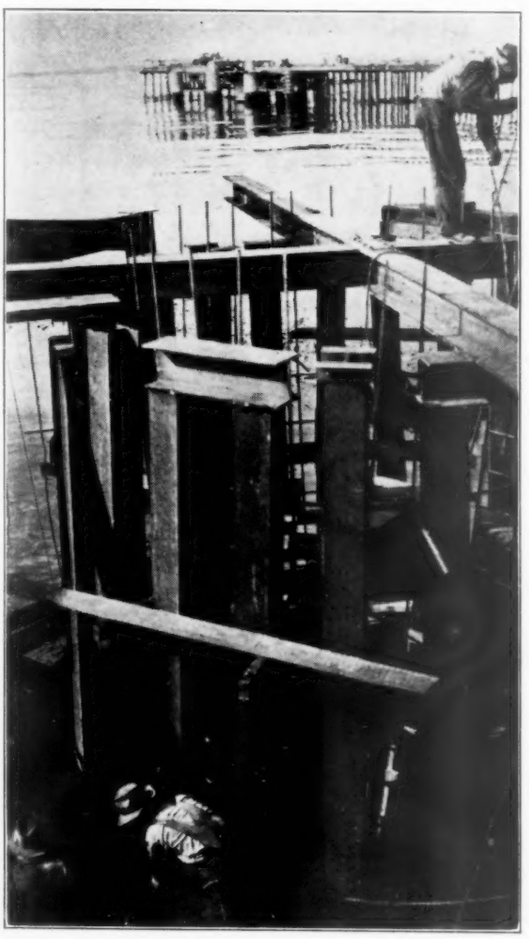
In the construction of these marine oil well foundations, perhaps the most notable improvement to date is the "stabilized foundation," invented and designed by the writer.

This stabilized foundation construction was made necessary by conditions encountered in deeper water locations where the total overturning moments of storm wind on the derricks and storm waves on foundation structures might become very large.

For exomple, if we assume a 100-mile per hour wind velocity against 122-foot derrick with full stand of drill pipe and 2000 pounds per square foot wave pressure against a stabilized foundation at sea surface, the total overturning moment for 40 foot depth of water becomes 6200 foot tons as compared with 765 foot tons for a land location with a 100-mile per hour wind velocity.

Another danger to be reckoned with in addition to these stresses is the soft materials of the bottom of the ocean to be penetrated before a reliable foundation is secured in firm shale. The first and older type of foundations call for several columns of concrete poured into the ocean bottom joined on top into a table upon which the rig was set. These many columns made necessary a large total perimeter of cofferdams. The expense of excavation to penetrate the shales and the necessary bracing in this type of construction was extremely high. The volume of concrete was large and the surface exposed to wave action made expensive sway bracing necessary.

Using the same given problem as used above with a 100-



Construction of well foundation from detail sketch shown on the page opposite

mile per hour wind velocity and the same wave pressure, this larger surface exposure of many columns offers a total overturn moment of 11,200 foot tons compared to 6200 foot tons with a stabilized foundation.

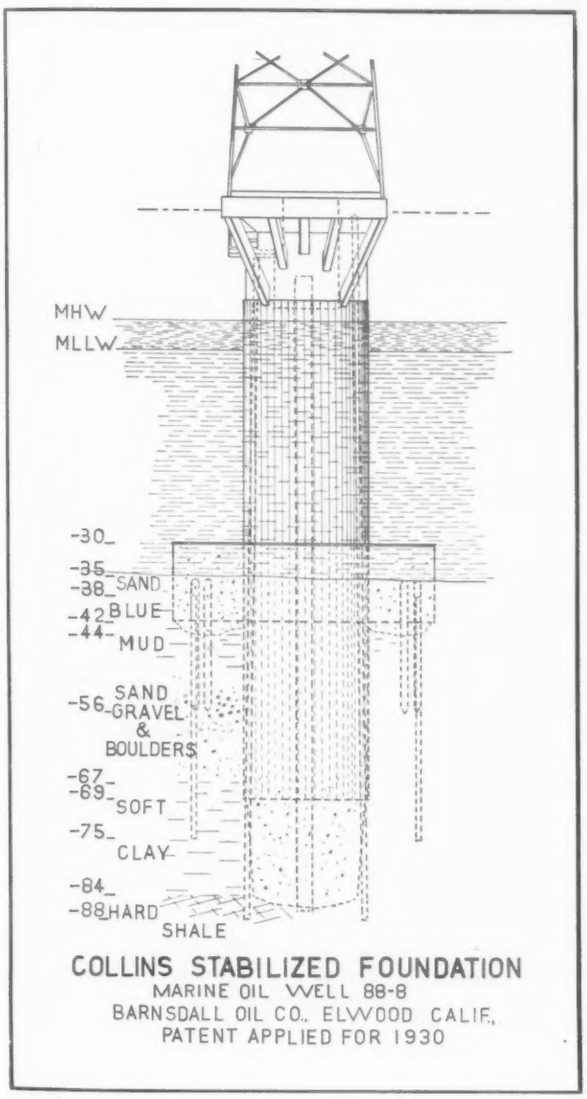
What it Is

There are three essential members in the Collins foundation, as applied to marine oil wells; first, one central column member; second, stabilizer around the column at ocean bottom; third, foundation top of column.

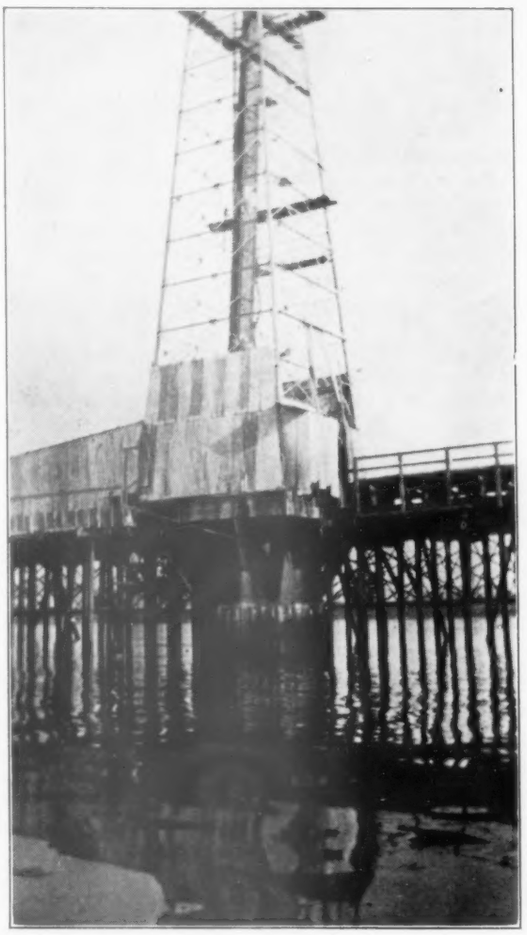
The central column member is designed to furnish ample resistance to bending, with a minimum area of exposure to wave action. In the problem described with a 100-mile per hour wind velocity, the allowable working bending moments at level of sea bottom is 18,000 tons with a safety factor of five on a column with a diameter of 19 feet.

Another attractive feature of this stabilizer is that it furnishes horizontal thrust at ocean bottom level, without "cresting" the waves. To effect this, it is proportioned to suit the depth of water and bottom material encountered.

The foundation top on the column is to furnish a floor table 26 foot square upon which to erect a standard steel derrick 122 feet high with a 24-foot spread at base. Also,



COLLINS STABILIZED FOUNDATION
MARINE OIL WELL 88-8
BARNSDALL OIL CO., ELWOOD CALIF.
PATENT APPLIED FOR 1930



Derrick erected on new style Collins Stabilized Foundation showing the single column top to which derrick is attached

the rotary table is connected to the 19-foot column with strength ample to meet all stress of the deepest rotary drilling operations.

The foundation top is hollow from elevation plus seven feet to the top of the floor slab, providing a "cellar" 10 feet in diameter by 17 feet deep with side access at elevation plus 16 feet, through a tunnel on the draw-works side.

Actual construction on the well foundation itself, embodying these three essential members, is started after the completion of the pier. The pier is used for access purposes and also to hold the necessary false work in place during the process of construction.

Construction Features

The central column cofferdam is driven first. This is composed of 48 pieces of 15-inch interlocking steel sheet piling, which is driven in the shape of a circle 19 feet in diameter. Inside this circle 24 pieces of nine-inch H beam, weighing 51 pounds per lineal foot, are driven against alternate sheet piles to act as stiffeners. These are held in place by bolting them to an outside angle-iron ring, through the sheet pile top.

The sea bottom inside the ring of sheet piling is then excavated to hard shale, which in the last location was found at elevation, minus 84 feet, or 54 feet below ocean

bottom under 34 feet of water. In order to reach the shale at this point it was necessary to excavate through successive layers of sand, mud, gravel, boulders and soft clay.

The regular 32-inch conductor pipe, extending from the bottom of the excavation to above the cellar floor level, is set. The 24 H beams are unbolted from sheet piling and pulled into a circle with the diameter of 15 feet. This forms the vertical reinforcement. Horizontal reinforcing bars are lowered into place between the H piling and sheet piling and concrete is poured through a 12-inch tremie tube.

This concrete pour is made in one continuos operation up to elevation plus four feet.

At this elevation the operations have passed the danger of collapse of the column which comes with high or rough seas.

Next is the stabilizer. To insure the column against all storm, wave action, the stabilizer is an important and necessary part. It is built of ⅜-inch steel reinforced with four-inch angle-iron ribs and in the case of the latest location was 40 feet in diameter and 12 feet high.

The steel company delivers this in small sections ready for assembly on the false work around the vertical column. This 40-foot diameter sheet steel caisson is then lowered to bottom.

More excavation—and a ¾ yard clam shell bucket is lowered to work inside the big steel ring. The depth of the water and attending wave actions determine the depth to which the caisson is lowered. In the last Barnsdall location the steel was sunk eight feet into the ocean bottom.

How Piling is Driven

Stub piling is then driven by means of a follower around the inside edge of the ring. In the last foundation 80 piles were used, 40 were steel and 40 were of untreated wood. These were driven to refusal in a gravel bed. Reinforcing is lowered into place and concrete pouring follows by the same method used in the column.

Simultaneously with the construction of the column and stabilizer the top frame work is fabricated. When the former are finished, the top frame work is bolted in place and electrically welded. Around this, forms are placed and concrete is poured for the forming of the cellar and derrick floor.

The derrick floor is a fire-proof concrete slab, and as a protective feature, is arranged to cover the operator's head while standing in the access tunnel to operate the shut-off valves in the cellar.

The electric light conduits and other receptacles are cast in the same slab to leave all space in the cellar opening clear.

The wharf structure around this well foundation is of 10-inch steel H beams with four-inch angle tie braces. One pile in each bent is driven at an angle, forming a very stiff brace, which is welded to the vertical piles.

No Permanent Tie

No permanent tie is permitted between pier and well foundation. Clearance space of four inches is maintained to prevent the chance of sway in the pier from wrecking the foundation of the well.

The successful result of the construction operations upon this latest foundation was attained with the active and able cooperation of the contractor, Merritt-Chapman & Scott Corporation, the first contractors on Hoover Dam.

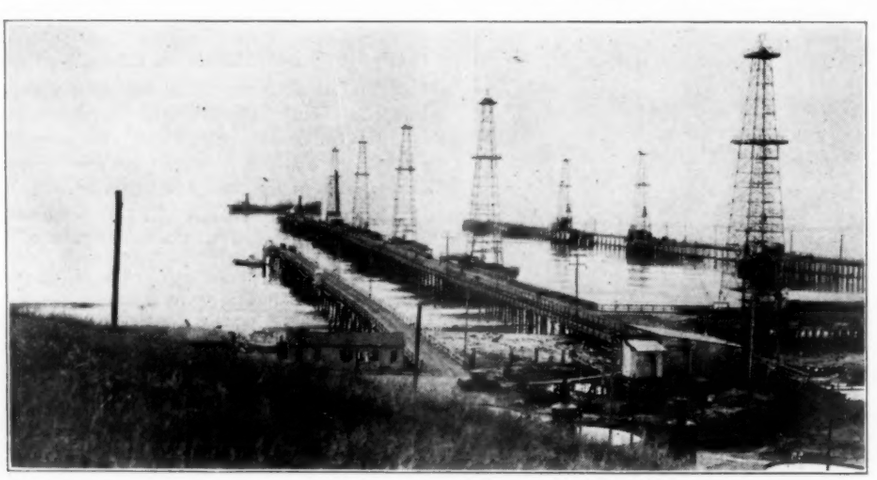
Below is the comparative quantities of various materials used in "Collins Stabilized Foundation" as against the old style of five-leg foundation. It is interesting to note that the difference in material cost is $12,500 more for the old style foundation, to say nothing of the extra labor costs:

	Single leg stabilized foundation	Five leg old style foundation
Steel sheet piling	74 tons	179 tons
Bearing piling	68 tons	118 tons
Stub piling	38 tons	38 tons
Structural steel	29 tons	48 tons
Stabilizer steel shell	14 tons	14 tons
Reinforcing steel	11 tons	12 tons
Rock and sand .....2750 tons		3180 tons
Cement	8500 sacks or 425 tons	9735 sacks or 487 tons
Total tons .....3409 tons		4076 tons

This comparison shows that substantial savings are effected in material costs by the single column foundation. Similar savings are shown in labor costs.

Further advantages will be gained by the single column foundation whenever it becomes necessary to remove an abandoned location down to ocean floor level, as may be required by state or national authority.

The large central conductor pipe will permit internal access to the column at ocean bottom level for the purpose of mining out a chamber to reach vertical bearing piles and sheet piling in the dry, so that they may be cut by oxy-torch. The structure may then be wrecked with explosives and fragments dredged clean.



Offsetting between Barnsdall Oil Company and Pacific Western Oil Company at Elwood. Note the tanker loading in the distance

Total Crude Production of 10 Fields in East Central Texas, Since Discovery of Each at the Close of 1930

Prior to—	Corsicana-Powell	Mexia	Wortham	Van	Richland	Currie	Nigger Creek	Cedar Creek	Joiner	Boggy Creek	Total Production
Jan. 1, 1930.....	102,672,137	86,733,619	21,829,122	150,068	6,470,517	6,154,218	2,886,136	274,577	.....	1,363,823	228,534,217
Jan. 1930.....	184,994	126,348	27,140	131,114	7,474	10,966	5,149	1,547	.....	114,750	609,482
Feb. 1930.....	168,322	123,236	26,789	230,084	7,393	10,911	6,611	1,246	.....	99,143	673,735
March, 1930.....	183,573	138,115	29,089	329,603	7,747	12,660	7,874	2,271	.....	113,575	824,507
April 1930.....	177,187	135,353	27,863	578,665	7,937	11,271	6,119	1,353	.....	108,744	1,054,492
May 1930.....	177,842	131,979	26,715	701,209	7,643	10,742	5,587	909	.....	108,680	1,171,306
June 1930.....	170,037	130,313	26,795	721,011	6,002	9,229	6,838	1,932	.....	106,680	1,178,837
July 1930.....	171,370	144,298	24,977	752,000	5,403	11,206	4,882	1,539	.....	102,525	1,218,200
Aug. 1930.....	170,129	127,019	20,003	764,529	4,491	10,384	6,674	1,502	.....	87,480	1,192,211
Sept. 1930.....	160,177	122,429	21,201	835,652	5,574	9,582	6,160	1,837	.....	83,600	1,246,212
Oct. 1930.....	162,125	120,153	19,303	853,893	4,783	10,330	6,811	757	4,500	80,097	1,262,752
Nov. 1930.....	150,096	111,471	18,376	821,172	3,392	8,807	5,196	1,613	5,690	69,821	1,195,634
Dec. 1930.....	160,930	121,564	19,913	811,795	4,760	10,278	5,407	1,439	13,250	60,232	1,209,568
Total for 1930.....	2,036,782	1,532,278	288,164	7,530,727	72,599	126,366	73,308	17,945	23,440	1,135,327	12,836,936
GRAND TOTAL..	104,708,919	88,265,897	22,117,286	7,680,795	6,543,116	6,280,584	2,959,444	292,522	23,440	2,499,150	241,371,153

East Texas Woodbine Shows Large Per-Acre Yield

By H. H. KING
Staff Representative

HAVING yielded 241,371,753 barrels of oil during the 10-year period that production has been obtained from the Woodbine sand formation in Central East Texas, there are positive assurances that an even greater volume of high gravity oil is awaiting development and a market in the district. Gradual depletion of the original seven Woodbine sand fields in the Mexia-Corsicana fault zone which have contributed 231,167,768 barrels of the above total has been substituted by the development during 1930 of major oil fields in Van Zandt and Rusk Counties. Popularity of the latter two counties with operators is largely predicated on the spectacular production performance of the older Woodbine sand fields, while unusual oil sand thickness found in the Van Zandt County field forecasts a new record on oil yield per acre.

Leases producing from the Woodbine sand formation have a reputation, with few exceptions, of showing a net profit on operations. Such a rule has held good since the completion of the first oil producer in Woodbine by the late Col. A. E. Humphreys and associates at Mexia in November, 1920, while the average yield per acre of the various fields that have been on production any appreciable period offers conclusive proof.

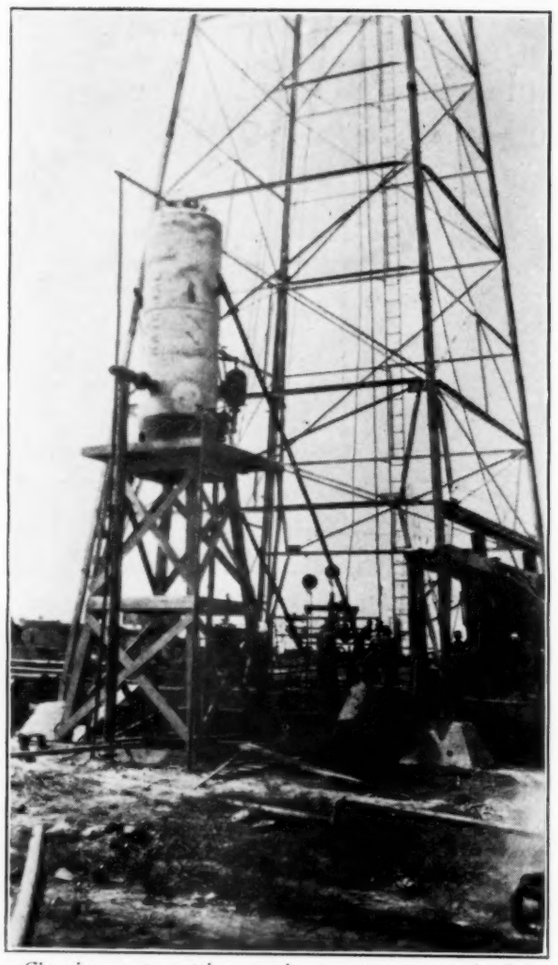
Corsicana-Powell field leads all Woodbine areas on total crude output and yield per acre. This field launched its uphill climb for production records on January 7, 1923, by the completion of the Corsicana Deep Well Company's J. H. Burke 1, as a small flowing well. Activity moved swiftly in the field during the following months, and a peak flow of about 350,000 barrels daily was attained by the middle of November, 1923. At the close of 1930 this field had produced 104,708,919 barrels of oil, including a small volume obtained from shallow sands by ripping casing on deep wells after the passing of the flush oil period, and the average crude yield per acre is now 39,513 barrels. During 1930 the field produced 2,036,782 barrels.

Wortham field has fulfilled most of the early predictions as to its average yield per acre through having produced 22,117,286 barrels, or an average of 30,933 barrels per acre. The late Colonel Humphreys et al also uncovered this small but prolific area, having completed the discovery well November 22, 1924. Depletion of the Woodbine at Wortham is indicated by the fact that operators saw fit to reduce the number of producers from 113 to 66 wells during 1930. It only added 288,164 barrels oil during the past 12 months.

Even though the Mexia field experienced a slower rate of development than other discoveries that followed, and also had a high percentage of small yield acreage, it has averaged 23,727 barrels per acre to date. Total oil recovery to close 1930 amounts to 88,265,897 barrels, with 365 wells still on production. Production during 1930 was 1,532,278 barrels, as compared to 1,908,249 barrels in 1929, thus indicating a slow decline for a field already in its tenth year.

Richland Fading Rapidly

Richland field is now rapidly fading out of the picture after



Cleaning out, getting ready to put on production, at Van

having averaged 27,263 barrels per acre in producing 6,543,116 barrels since December, 1923. There were only 17 wells left on the production list at the close of 1930, as 36 were plugged and abandoned during the year. Currie field increased its total recovery to 6,280,584 barrels up to the close of 1930, or an average of 16,748 barrels per acre. Although it is the second oldest field in the district it was never drilled closely, and depletion has been somewhat slow. The Nigger Creek field, which is the first of a pair of strikes on the secondary fault zone west of Mexia, has yielded 17,408 barrels per acre since its discovery July 8, 1926, while the Cedar Creek pool has produced an average of 11,701 barrels per acre since August 24, 1927.

Restrictions placed on production in the Boggy Creek field, Cherokee County, since its discovery March 21, 1927, by Humble Oil & Refining Company, is reflected by its average of only 2499 barrels per acre. The above company owns the producing area, which now has 24 oil producers scattered along a narrow area.

Van field, Van Zandt County, started the year 1930 off with only four producers confined to a 40-acre area, but ended the year with approximately 4000 acres of definitely proven oil leases, bearing 187 wells. Pure Oil Company ushered in this field October 14, 1929, with its first try for production, and because of the recognized great potentialities four other lease owners joined in perfecting a unit plan of development. Van produced 150,068 barrels oil in 1929, and 7,530,727 barrels in 1930, with rigid production restrictions in effect at all times. Since all wells drilled upon the 5800-acre unit block have cored the entire Woodbine sand horizon in accordance with unit plan rules, it has been definitely proven that oil saturated sand thickness ranges up to 500 feet. An average recovery of 150,000 to 200,000 barrels per acre is freely predicted for many leases in the field, while the entire structure is expected to ultimately yield more than 50,000 barrels per acre. Indications are that many years must elapse before proof of such predictions materializes, as the lease owners at Van are adhering to all modern conservation methods known to prolong the flowing life of the wells, with no intentions of throwing wells on wide open production as was the case in all fields in the Mexia-Corsicana district.

A great comeback for the Woodbine belt has followed in the wake of the Van strike, along with the discovery of two prolific areas in northwestern Rusk County late in 1930. C. M. Joiner et al proved that the Woodbine is productive in Rusk County on October 3 by the completion of a 350-barrel flowing well at 3592 feet. Other completions before the end of the year indicated a wide and prolific area is awaiting the drill, while Ed. W. Bateman et al's wildcat on the R. C. Crim farm, located 10 miles north of the Joiner field, flowed at rate of 900 barrels oil per hour at 3640-52 feet. Linking of these two areas is a possibility, and prompt development is an assured fact. Activity in Rusk County has not progressed sufficiently to arrive at conclusions as to oil yield per acre, etc., but it is certain to materially augment the production honors already gained by the Woodbine sand formation in Central East Texas.

Comparative data on fields producing from the Woodbine in the East Central Texas.

Field	Date Discovered	No. Producing Acres	No. Producing Wells	Crude Yield Per Acre	Total Production To Jan. 1, 1931
Corsicana-Powell	1- 7-23	2,650	423	39,513	104,708,919
Mexia	11-25-20	3,720	365	23,727	88,265,897
Wortham	11-22-24	715	66	30,933	22,117,286
Van	10-14-29	4,000	187	1,920	7,680,795
Richland	Dec. 1923	240	17	27,263	6,543,116
Currie	Oct. 1921	375	29	16,748	6,280,584
Nigger Creek	7- 8-26	170	30	17,408	2,959,444
Boggy Creek	3-21-27	1,000	24	2,499	2,499,150
Cedar Creek	8-24-27	25	7	11,701	292,522
Joiner	10- 3-30	.....	5	.....	23,440
Kilgore-Bateman	12-28-30	.....	1	.....	600
Total		12,895	1,154	18,718	241,371,753

Field Practice for Cementing Oil Wells

By H. T. RAKESTRAW, *Gypsy Oil Company*
and C. P. PARSONS, *Halliburton Oil Well Cementing Company*

The accompanying discussion of methods of cementing has been taken from a more complete paper presented by the authors before the Mid-Continent Section of the American Institute of Mining and Metallurgical Engineers, Tulsa, January 26.

The original paper entitled "Cementing" was divided into three chapters including: Cementing Practice, Methods of Cementing and Types of Cementing Jobs and Adaptable Cementing Methods. The accompanying material comprises the second chapter. The third chapter will appear in the next issue of The Oil Weekly.

Methods of Cementing

1. *Cementing through casing with plugs.*

The most effective way of cementing through casing is by the two-plug method. This consists of placing a bottom cementing plug in the casing ahead of the cement and a top plug after the cement, thus enclosing the cement between the two plugs. This method has been the basic standard of both the Perkins Cementing Company in the California and Rocky Mountain area and the Halliburton Oil Well Cementing Company elsewhere.

At the time this method was first introduced the use of float valves in the pipe was unknown. The first plug was pumped out of the casing, and the second plug stopped on top of the first plug, but the upper part of the top plug remained inside the casing, thus stopping the pump and indicating that the cement was on the outside of the casing. Later, the use of float valves in the pipe created a demand for a specially designed bottom plug that would stop on top of the float valve and yet would allow the cement to pass by. Some operators discontinued the use of the bottom plug when using float valves in the pipe. However, the two-plug method claims for its advantage that the cement remains uncontaminated while the cement is being pumped down the casing. Besides using the two plugs, the Haliburton method, by use of the measuring line, continually measures the position of the top plug during its descent. This measuring method can be used either alone or in combination with a barrier or float collar placed near the bottom of the casing, which indicates the arrival of the top plug at that point by stopping the pump. With this procedure the measuring line will indicate the position of the cement in case the top plug is prematurely stopped by a casing leak. It is also useful in checking up errors in pipe tallies.

2. *Cementing through tubing.*

In the tubing method of cementing the essential feature is the pumping of the slurry through a string of tubing instead of directly into the casing.

This method has the advantage that once the tubing is in the hole, the cement can be placed faster than by any other method. The running and pulling of the tubing, however, is a time-consuming process and must be completed within the time required for the cement to set. There are, however, conditions in a well, such as in repair work, where only the tubing or dump bailer methods could be used.

Cementing through tubing may be accomplished by several methods, or combinations of them, the variations depending upon the particular job to be done.

(*a*) *Gravity method of plugging back through tubing.*—The cement is pumped into the tubing, which is bottomed at the desired point in the well. The circulating fluid is then run into the tubing on top of the cement until the tubing fills up and the returns stop, which will indicate that equilibrium has been reached and the cement has equalized. The tubing is then pulled up to a point just above the desired point for the top of the cement and circulation started either down through the tubing and up between the tubing and casing, or vice versa. The latter is the quicker way and this circulation is continued until all the excess cement is washed out of the hole. The tubing is then pulled.

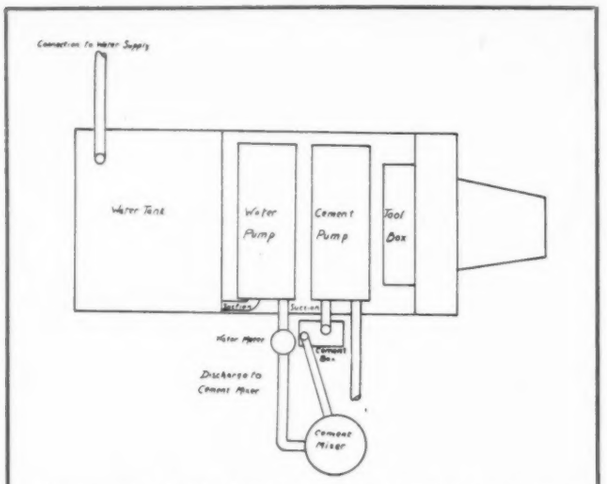
Should it be necessary to put pressure on the well, the tubing may be packed off by a previously installed packing head placed on the casing, and pressure put on the tubing or casing, as is desired.

(*b*) *Siphon method of plugging back through tubing.*—This is very similar to the gravity method and can be used especially where water is the circulating fluid. The tubing is connected to the discharge end of the cement pump. Care should be exercised that all connections are perfectly air tight. The cement is then mixed to the desired consistency and started down the tubing by means of the pump. As soon as a sufficient quantity has entered the tubing it starts a siphoning action. As the last of the cement is about to enter the pump suction, water may be turned into the suction box and allowed to siphon into the tubing until equilibrium has been reached. The tubing is then either raised and the excess cement circulated out of the hole, or removed.

This method can be used in some cases where it is not justifiable to use a power pump to place the cement, or to move in a sand reel and string up a bailer.

(*c*) *Tubing methods using plugs.*—In using a plug or plugs when cementing through tubing, the bottom of the tubing is usually equipped with some kind of a fitting to stop the plug. The simplest procedure is to place a swage on the bottom of the tubing. The plug should be made of soft wood, and pointed so that the end will wedge securely in the swage.

The procedure is the same as cementing with one plug through casing. When the plug reaches the swage, the pump is



Diagramatic sketch showing layout of surface equipment of Halliburton Cementing Equipment

stalled by the jamming of the plug into the swage. Should it be necessary to put pressure on the cement, the tubing is withdrawn to a safe distance from bottom, and the top sealed. Pressure is put on the casing through a suitable connection below the packing head.

Two plugs may be used by placing a bull plug in the end of the tubing and perforating the tubing about three feet from the end. The first plug should be sufficiently short so that when the bottom of the plug reaches the bottom of the tubing, the top of the plug will be below the perforations. The top plug should have a flexible disc on top and be long enough to reach from the top of the first plug to a point above the perforations. As soon as the plugs come together the perforated outlet will be closed and the pump will stall, indicating that the cement is out of the tubing.

The disadvantage of the above use of plugs in cementing through tubing is that the tubing cannot be washed out after the cement has been run. There are several ways, however, of altering the above methods to allow the plug or plugs to be forced out of the tubing after the cement is out of the tubing. One way is to have the tubing, before cementing, just a few inches off bottom and follow up the cement with a wood plug several feet long and with a fabric disc on top. When this plug passes partly out of the tubing it strikes the bottom of the hole and shuts off the pump at the surface. The tubing is then raised and the plug pumped out, after which the excess cement can be washed out of the hole. If necessary, this can be varied to use two plugs, the first plug being very short and pumped out of the tubing ahead of the cement.

In some cases the use of a plug is justifiable. if not necessary. This will be seen in the following paragraphs under pressure methods.

(*d*) *Tubing methods using pressure.*—The pressure method of cementing through tubing may be divided into two parts:

A. With cement retainer.—A cement retainer is a packing device used to run on the end of the tubing, making a tight seal between the tubing and the casing, so that cement may be pumped through the tubing and behind the casing or into formations without danger of any cement getting between the tubing and the casing.

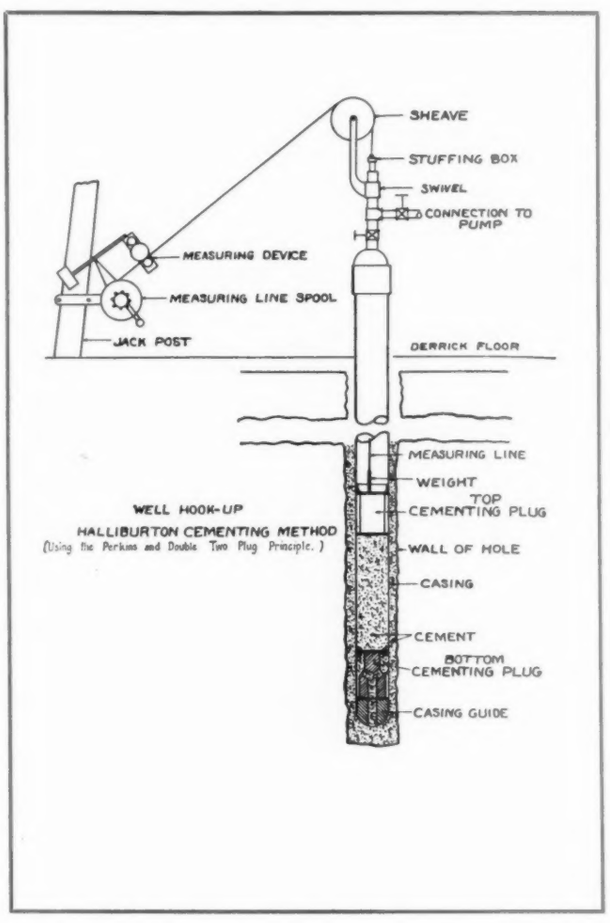
The retainer is built of cast iron, and is attached to the bottom of the tubing by means of a left-hand nipple. The retainer is lowered to the desired point in the casing, at which point the retainer is "set" by raising the tubing several inches. This engages a set of slips with the casing, and a further tension on the tubing spreads a rubber packer against the casing, making a tight seat. The retainer is equipped with a valve constructed so that cement may pass through the retainer, but upon releasing the pressure on the tubing the cement will not flow back.

It is necessary, when attempting to use this device, that there be some circulation or movement of fluid behind the casing or into formations. The reason is obvious.

The procedure, after the possibility of circulation or movement of fluid has been established, is to run the tubing and set the packer. Before any cement is pumped in, circulation should again be established to make sure that everything in is order and that the packer is not leaking. Cement is then pumped through the tubing to the desired place in the hole. The tubing is then disconnected from the retainer by turning the tubing to the right, and then is thoroughly washed out. The retainer, being made of cast iron, is easily drilled up after the cement has set.

Two advantages of this method are as follows: First, the top of the cement can be established at any point in the casing; and second, it does not take a great amount of circulating fluid to place the cement, as would be the case were the casing method used.

B. Without cement retainer.—Cementing through tubing with pressure and without a cement retainer is necessary where circulation is poor, or impossible. While it has often been stated that it is useless to try and cement where fluid movement is very difficult, even to a small extent, quite often a water shut-



off may be obtained by placing the cement through tubing and exerting a pressure on it. If the time element will allow, the excess cement can be washed out of the hole by circulating with a back pressure of several hundred pounds.

3. *Cementing through rotary drill pipe.*

Cementing through rotary drill pipe is essentially the same as cementing through tubing, except that the use of plugs is difficult, due to the constrictions at the tool joints.

The gravity or siphon method is the most common method of placement used. Pressure may be applied quite readily, as with tubing, using a suitable packing head between the drill pipe and the casing. A cement retainer device can also be used when necessary.

Cementing through drill pipe has an advantage over tubing in that the pipe can be handled a great deal faster than tubing. If desirable, the drill pipe can be rotated while the cement is being placed.

4. *Dump bailer method.*

This method was the first one used for cementing casing in oil wells. The method is simple and satisfactory for cable tool work where very small quantities of cement are necessary.

As the heading implies, the cement is "dumped" in the hole by means of a bailer in the same manner that water is "dumped" in dry hole cable tool drilling. The bailer may be a sectional one with a "dump stick" attached to the dart, or, better still, a specially constructed bailer having a positive dumping device, such as the latch jack type.

It is generally conceded that all the cement to be used should be dumped in one batch, which is limited by the capacity of the bailer which can be used. In an ordinary plugging back job, quick setting cement, or cement containing accelerator, may be used and any number of batches dumped, allowing sufficient time for each batch to attain its final set before dumping another.

Steaua Perforating Tool Prolongs Life of Roumanian Field

THIS device prolonged the life of the Campina field beyond its allotted span. But for this tool, the field might long ago have been abandoned. It seems that the perforations in the well liners become clogged and choke off the infiltration of oil; so, every 60 to 90 days, new perforations are drilled; and by this means the wells are restored to production.

The foregoing remarks were made by a Steaua engineer who accompanied us as we passed by en route to fill another appointment. Later, an opportunity was afforded to inspect the perforating machine at close quarters alone. The description of it, therefore, must be limited to what could be "figgered out," unaided except for the pantomine of the Roumanian workmen.

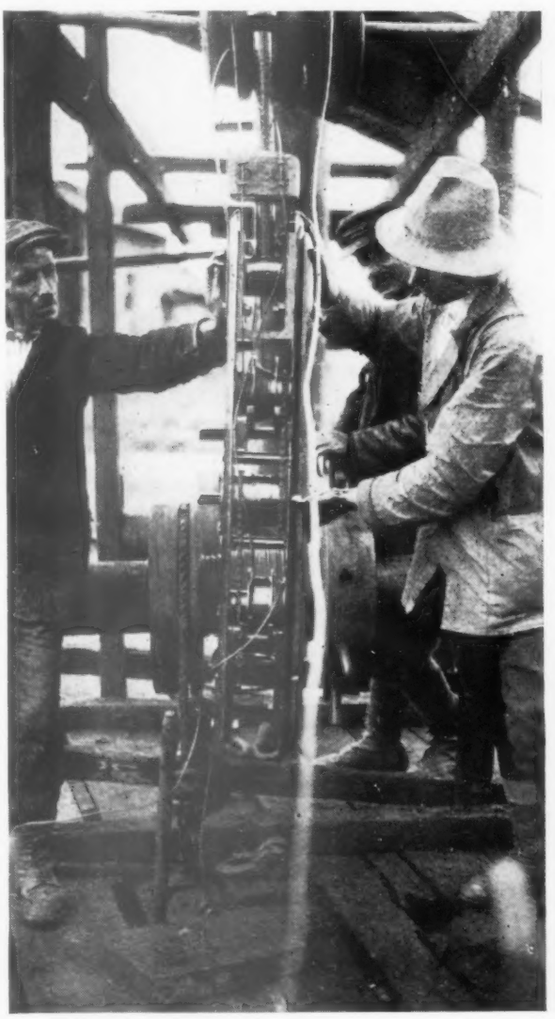
The perforations are made by a rachet drill, operated from the surface by means of three 3/16-inch woven wire lines. One of these, presumably, is for advancing the drill; another is for rotating it in position; and the third for withdrawing it from the casing upon completion of each each perforation. This is accomplished by means of three small drums, as shown in the accompanying photographs. One, on which two lines are wound, is for advancing and retarding the drill bit; and the other is for rotating it. These are connected to the center drum, which controls the bit, by means of sprockets and bicycle chains. The center drum is split in half . Presumably, one section rotates the bit and the other advances and withdraws it.

These three small wire lines extend to three larger drums at the surface. These latter are manipulated by hand. When the machine has been manoeuvered into position below ground, a workman stationed at No. 1 drum advances the bit into contact with the liner wall; whereupon a second man sets it in rotation by the operation of No. 2 drum, No. 1 operator meanwhile feeding or advancing the bit slowly as it cuts away the metal of the liner wall. Upon completion of each perforation, the bit is withdrawn into its shell by the operation of No. 3 drum; whereupon the device is moved upward or downward to a new position and the process is repeated.

The machine is about seven feet long, over all; and its outside diameter is slightly smaller than the i. d. of the pipe in which it is to be run. Its framework consists of two steel strips about 3½ inches wide by four feet long, the construction of which is clearly shown in the photographs. On the side opposite the bit, a wooden shield is bolted to protect the machine from damage by casing collars, etc. This side is pressed back firmly against the opposite wall of the liner to give support to the bit during the drilling process. The other side is protected by two longitudinal steel springs, one at each end of the machine, which center it in the hole when being run in and out .

The bit may be of whatever size is desired for the diameter of the perforations. In this case, it was of about one-half inch in diameter.

The machine is run on a bailing line below a cable tool stem and a set of jars, which, presumably, are for the purpose of breaking the drill bit in case it should become stuck in the liner.



Steaua perforating tool

Too much for the mule

Piping Gas to Louisiana Problems That

By JACK LOGAN
Staff Representative

ABUNDANCE of swamp lands along the right-of-way, much of it heavily wooded, has necessitated use of various special methods and items of equipment on the 158-mile natural gas line of United Gas System now under construction between Kirbyville, Texas, and Franklin, Louisiana. Along with the unfavorable terrain encountered, the construction crews have been further slowed down by inclement weather, and consequently the completion of the line is not anticipated before May 1.

In some instances the marshy ground encountered has necessitated the abandonment of plans to use ditching machines, and the trenches for the pipe are being dug by hand, providing work for numerous workmen who would not otherwise be needed.

Another interesting feature in connection with the work on this project is that contractors found in some instances that it would be impossible to transport their portable electric welding machinery on skids because of the swampy ground. Consequently those units were mounted on air-tight steel pontoons.

In some of the area where welding was in progress mules drawing the welding machinery on the pontoons became mired. Tractors were then tried, and they likewise were unable to negotiate the boggy terrain, and the pontoons were then moved by hand.

Through some of the heavily wooded swamp lands the right-of-way clearing crews experienced much difficulty in opening a lane, and blasting powder was utilized to accomplish this work.

In line with the policy of the United Gas System, contractors are employing laborers from the sections where expansion work is in progress, and during the past week the Kirbyville-Fenton sector required 250 workmen, while the Fenton-Franklin unit gave employment to 420 men.

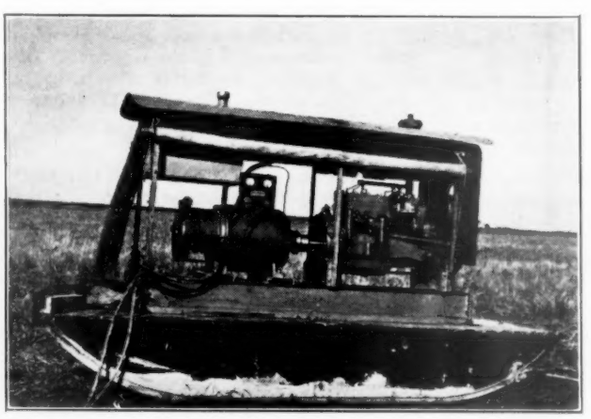
It is estimated that the Kirbyville-Fenton section will require 58 miles of line, of which about 10 per cent is complete; while the Fenton-Franklin section will require 96 miles of line. The latter section is being laid by three groups of workmen, and that part of the line also is approximately 10 per cent completed.

This Southwest Louisiana project will make gas service available to an area inhabited by approximately 125,000 persons, and it will serve 40 towns initially.

The trunk line will cross both the Sabine and Calcasieu Rivers. Work on the Sabine River crossing has been started by a force of 25 workmen.

Work has also started on the DeQuincy, Merryville, DeRidder lateral line by a force of approximately 65 men. The trench on this line also is being dug by hand.

Two-ton tractor bogged along the right-of-way



Electric generator for welding mounted on steel pontoon

Serve Southern Presents Are Unique

The Lake Charles, Lockport, Sulphur lateral has also been started with 106 men employed.

The Rayne, Church Point, Opelouses and Washington lateral line is being laid by a force of 55 men.

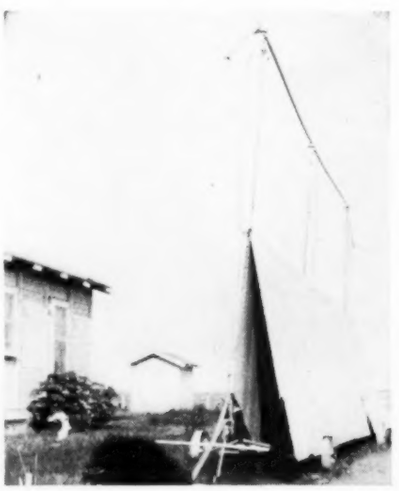
Original announcement of construction of this Louisiana project was published in THE OIL WEEKLY December 12, 1930, at which time details as to sizes and length of pipe along the various sections were given.

Lewistown, Mont.—The city of Lewistown may have two natural gas supplies within a short time if plans of Central Montana Utilities Company and Lewistown Natural Gas Company mature. The first named has had a franchise to supply the city for some time past, and plans to extend its line from Great Falls; contract requires that the consumers be supplied by December 1, 1931. Lewistown Natural Gas Company, on the other hand, is asking for a franchise to supply the city from its well near the city, recently completed by Armells Petroleum Company. New wells are to be drilled soon.

Right-of-way through Louisiana swamp on United Gas System's line

May showing (dotted lines) where the gas line across Louisiana connects with existing lines in Texas

Portable Fire Walls

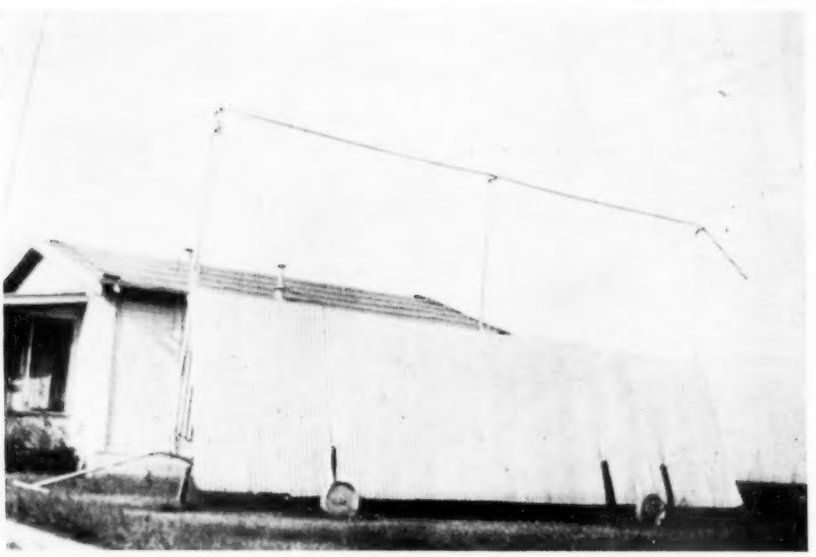


End view of Portable Fire Wall showing chains for raising section to desired position

Used for protection of field camp houses and supply buildings in Burbank Field

THE oil industry has devoted a lot of effort toward encouraging safe practices to eliminate fire hazards in the fields. Carter Oil Company has gone a step farther in the Burbank pool, where it has constructed portable fire walls to be used in camps where houses are built closely together and where water pressure is never sufficient to rapidly combat the spread of fire. In the event that one house in a row becomes ignited the fire wall is rolled to the windward side of the house located down wind from the fire. This prevents flames from being blown to the next structure and obstructs glowing embers in their flight with the wind. It also furnishes a suitable barrier from behind which the fire fighting operations can be executed.

The frame for the fire wall utilizes approximately 230 feet of two-inch pipe, 80 feet of 1½ inch pipe, and 80 feet of one inch pipe, all of which has been previously devoted to other uses. The lower part of the frame is eight feet high from center of the wheel hub to top and 36 feet long, and the upper part of the frame is six feet high and 36 feet long, making the wall of galvanized iron approximately 15 feet high and 36 feet long. The wheels are made of old 20-inch pipe protectors with boiler plate steel welded on the inside and drilled to receive a 1½ inch bolt. Two-inch pipe is used for the major part of the axle and a 1½ inch bolt is welded inside of it to make the wheel spindle. The "fifth wheel" is made from two pieces of boiler plate steel, 24 inches in diameter, one fastened on top of the front axle and the other to the bottom of the lower section. The 1½ inch horizontal pipe at the top of the frame is bent downward at each end to clear wires, trees and other obstructions when the fire wall is being moved.



Side view of Portable Fire Wall used in the Burbank field by the Carter Oil Company. Upper section is lowered.

Markets • Production • Crude Prices

H. J. STRUTH, *Staff Economist, Houston, Texas*

Crude Production Decline Causes Stock Withdrawal

A decline in daily average crude production last week of 24,650 barrels, brought the national production curve down to 2,085,950 barrels, indicating that the total crude output of the United States for the first month of this year amounted to approximately 64,874,000. Since the demand for January is placed at a daily average of 2,117,000 barrels, it is apparent that the total consumption during January was about 65,627,000 barrels, indicating that stocks were drawn upon to the extent of about 753,000 barrels during the first month of this year. At the rate of production maintained last week, stocks are being drawn upon to the extent of about a million barrels a month. Under these conditions, it is logical to conclude that improvement in the price structure must materialize before long. In fact, the only remaining adverse factor to prevent a boost in the crude market is the gasoline situation. Thus, the producer would appear to be "sitting pretty" at the first definite sign of improvement in the gasoline market.

Talk of the possible collapse of proration in the United States is not believed prudent at this time, since it is a foregone conclusion that a return to a "wide open" production program would quickly destroy the opportunity for betterment that is now within easy grasp of the industry. It is believed, however, that the chief reason for the prevalence of dissatisfaction over proration lies in the rigidness with which purchasing companies are limiting their requirements. While it is imperative that stocks of crude be reduced this year, it is also apparent that the demand outlook for the period beginning with April would constitute a more opportune time to effect necessary storage reductions. As was pointed out in last week's issue of THE OIL WEEKLY, an economic crude production limit of 2,328,000 barrels daily, if maintained throughout all of this year, would effect a stock reduction of 35,000,000 barrels. If the purchasing companies would increase their takings now, allowing production of the United States to be increased to the economic limit of 2,328,000 barrels, it is believed that producers in every section of the country would be willing to maintain that rate of production throughout the year, while existing clouds hovering over the present plan of proration would vanish from the horizon. The industry must continue to carry out a rigid program of curtailment this year, but there is no reason why proration should restrict purchases to the point where many operators are being forced out of existence. What the industry needs now, more than ever, is an opportunity to produce sufficient oil to relieve distress of those who have suffered severely from proration. The industry can produce more—200,000 barrels more a day—and still maintain its equilibrium this year, provided that the purchasing companies are willing to store some oil now against an outlook for substantial withdrawals from storage in the very near future.

Total Up Slightly

Compared with the allowable and economic limit of the various producing states for the first quarter of this year, last week's daily average crude production was only 23,950 barrels in excess of the proration limit. Compared with the economic production limit for this year, 2,328,000 barrels daily, production last week was 242,000 barrels a day less than normal. California proration committees are having considerable difficulty in bringing the state output down to the allowable of 500,000 barrels. In fact, last week the actual production was 26,000 barrels above that figure. Oklahoma has further reduced output to the point where the total is now 20,950 barrels below the allowable figure of 465,000 barrels. Texas production last week was 40,600 barrels above the new allowable of 644,000 barrels, made effective on January 23.

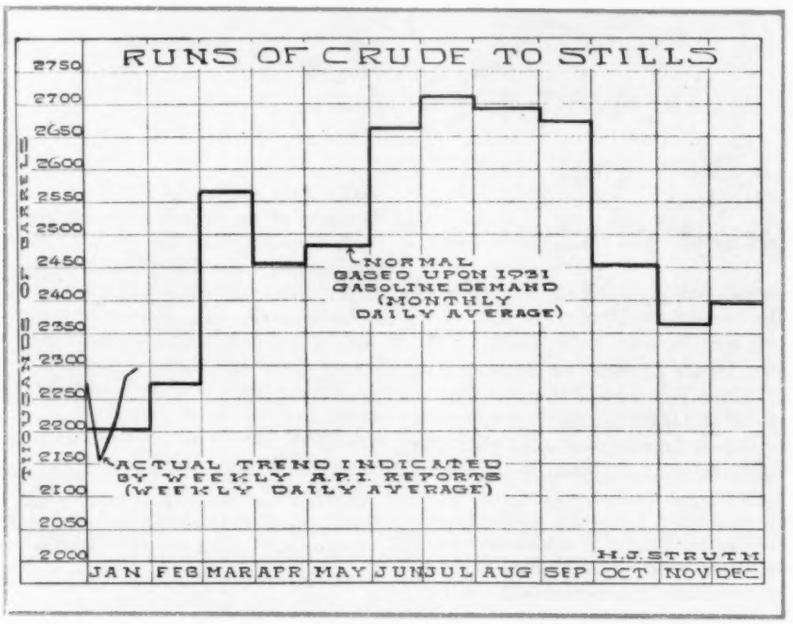
Increases in production were reported last week for Texas, outside of Gulf Coast, Gulf Coast, North Louisiana and Eastern States. Declines were reported for Oklahoma, Kansas, Arkansas, Rocky Mountain States and California. The increase in Texas was attributed to a gain in production in Reagan County of 3500 barrels a day. Oklahoma City production staged a decline last week of 17,450 barrels, accounting for the most of the decline recorded for Oklahoma. Playa del Rey, Elwood, Huntington Beach and Long Beach, California, fields were credited with the decline reported for that state last week. Voshell and "other" Kansas fields reported a combined decline of 2200 barrels daily, bringing the state production down to the indicated quarterly economic limit.

Refinery Runs to Stills Decreased; Stocks Rise

Runs to stills for the week ending January 31 declined about 15,000 barrels, reducing the total daily average to 2,284,000 barrels. Figures compiled by the American Petroleum Institute showed that runs aggregated 15,522,000 barrels, a daily average of 2,217,000 barrels, representing slightly more than 95 per cent of the potential capacity of the United States. On a Bureau of Mines basis, daily average runs for last week are about at a normal rate, which, according to the accompanying chart, is the rate at which still runs should be maintained throughout February.

As a result of lower runs to stills and an accelerated demand for gasoline, stocks of gasoline showed an increase of only 162,000 barrels during the past week. This is a material improvement over the preceding week when stocks increased 1,111,000 barrels. It is apparent that gasoline production was somewhat larger than normal during January, resulting in an addition to stocks in excess of the rate prescribed by the impending increase in demand. In view of that position, the refining branch of the industry should endeavor to hold still runs at the present daily average throughout this month, with the idea of boosting crude throughput on March 1. If reasonable control over still runs is exercised during this month, according to the limits prescribed by the chart, there is every reason to believe that material market improvement will be experienced during March.

MARKET SECTION



Market Condition Forces California Output Down

Production has settled to the lowest figure of several years in California, and out of the recent sharp drop caused by withdrawals of large purchasers is expected to come a more settled output.

Long Beach has been producing below its allowable and such a develpoment could have been caused only through reduction of purchases. Richfield Oil Company has succeeded in signing contracts to purchase most of the 25,000 barrels bought under the old scheme, the new plan calling for the refining and marketing of the products and settlement after the profits are determined. Other purchasers did not jump in after Richfield Oil Company's withdrawal, as they would have done under ordinary circumstances. This virtually left a good sized production at Long Beach without a steady market.

Playa del Rey has shown no change and curtailment is far from a reality in this field. Despite an improved tone and a much smaller production. Conservation still faces a serious test in the future. A ready market only for the allowable appears likely and on this basis curtailment may eventually stand or fall.

Crude Runs to Stills, Gasoline Stocks and Gas and Fuel Oil Stocks

Week Ending January 24, 1931

(Figures in barrels of 42 gallons)

District—	Potential Daily Capacity	Potential Capacity Reporting Total	Potential Capacity Reporting Per Cent	Crude Runs to Stills Total	Crude Runs to Stills Daily Average	Crude Runs to Stills Per Cent Operated	Gasoline Stocks	Gas & Fuel Oil Stocks
East Coast	612,700	612,700	100.0	3,071,000	438,700	71.6	6,476,000	8,400,000
Appalachian	141,300	132,500	93.8	586,000	83,700	63.2	1,157,000	1,046,000
Indiana, Illinois, Kentucky	390,800	381,000	97.5	1,737,000	248,200	65.1	4,669,000	3,003,000
Oklahoma, Kansas, Missouri	461,100	412,200	89.4	1,734,000	247,700	60.1	2,800,000	3,826,000
Texas	809,000	743,500	91.9	3,922,000	560,300	75.4	7,582,000	10,070,000
Louisiana-Arkansas	266,600	262,000	98.3	939,000	134,100	51.2	1,596,000	2,290,000
Rocky Mountain	150,100	139,700	93.1	283,000	40,400	28.9	1,700,000	954,000
California	898,500	887,600	98.8	3,351,000	478,700	53.9	15,515,000	102,463,000
Total week January 24	3,730,100	3,571,200	95.7	15,623,000	2,231,800	62.5	41,495,000	132,052,000
Total week January 17	3,730,100	3,571,200	95.7	15,528,000	2,218,300	62.1	40,384,000	133,728,000
Total week January 25, 1930*	3,650,900	3,486,600	95.5	17,579,000	2,511,300	72.0	47,298,000	142,845,000
The Texas and Louisiana Gulf Coastal Figures Shown Below are Included above in the Totals of Their Respective Districts.								
Texas Gulf Coast	529,500	529,500	100.0	3,058,000	436,900	82.5	6,165,000	7,626,000
Louisiana Gulf Coast	147,500	147,500	100.0	618,000	88,300	59.9	1,355,000	1,308,000

*Total figures for last year are not comparable with this year's totals because of difference in percentage capacity reporting.

MARKET SECTION

HOW LAST WEEK'S DAILY AVERAGE PRODUCTION COMPARES WITH NECESSARY AND NORMAL QUOTA LIMIT

	Indicated Demand First Quarter 1931	Economic Limit First Quarter 1931	Actual Daily Average Week Ending Jan. 31, 1931	Excess
Arkansas	54,000	52,000	50,550	—1,450
California	547,000	500,000*	526,000	26,000
Kansas	109,000	105,000	104,050	—950
Louisiana	73,000	71,000	70,450	—550
Oklahoma	510,000	465,000*	444,050	—20,950
Texas	739,000	644,000*	684,600	40,600
Balance of U. S.	236,000	225,000	206,250	—18,750
Total	2,268,000	2,062,000	2,085,950	23,950

*Allowable.

Gasoline Situation Shows Improvement in California

A two-cent increase in gasoline prices to the tank and trailer trade, initiated by Rio Grande Oil Company, is construed as a forerunner of improvement in the gasoline market situation in southern California. The move was expected by dealers for some time and it is stated that many loaded up in advance of the boost. This had a stimulating effect upon the situation, but will probably also delay a higher price in the retail market, at least until dealers stocks are sufficiently reduced. At present rates of consumption, it is expected that increased buying at higher prices will follow shortly.

Rio Grande Oil Company is said to be taking the initiative in fostering a better market situation in California. This company has lately been able to effect sufficient curtailment of its refinery operations to reduce excessive

Cracked Gasoline Production

Week Ending January 24, 1931

(Barrels of 42 gallons)

District	Potential Charging Capacity (Daily) Total	Reporting	Per Cent	Production Total	Daily Average
East Coast	246,900	222,900	92.8	566,000	80,900
Appalachian	45,900	43,100	93.9	83,000	11,900
Ind., Ill., Ky.	294,200	269,200	91.5	340,000	48,600
Okla., Kans., Mo.	219,900	182,900	83.2	292,000	41,700
Texas	395,500	288,800	73.0	589,000	84,200
Louisiana-Ark.	109,400	107,900	98.6	267,000	38,100
Rocky Mountain	95,100	84,700	89.1	85,000	12,100
California	182,700	178,700	97.8	351,000	50,100
Total Week Jan. 24	1,589,600	1,378,200	86.7	2,573,000	367,600
Total Week Jan. 17	1,589,600	1,372,200	86.3	2,475,000	353,600
Total January 25, 1930		(Not Available)			
The Texas and Louisiana Gulf Coastal Figures Shown Below are included in the totals of their respective districts.					
Texas Gulf Coast	305,000	219,500	72.0	483,000	69,000
Louisiana Gulf Coast	77,000	77,000	100.0	205,000	29,300

Imports of Petroleum

(Barrels of 42 gallons)

	Week Ended Jan. 24	Week Ended Jan. 17
AT ATLANTIC COAST PORTS—		
Baltimore	79,000	221,000
Boston	133,000	128,000
New York	1,093,000	869,000
Philadelphia	341,000	118,000
Others	299,000	227,000
Total	1,945,000	1,563,000
Dail Average	277,857	223,286
AT GULF COAST PORTS—		
Galveston District	.....	63,000
New Orleans and Baton Rouge	107,000	83,000
Port Arthur and Sabine District	.....	.....
Tampa	.....	10,000
Total	107,000	156,000
Daily Average	15,286	22,285
AT ALL UNITED STATES PORTS—		
Total	2,052,000	1,719,000
Daily Average	293,143	245,571
Daily Average Four Weeks Ended	272,500	270,250
Distribution of Total Imports is as follows:		
Crude	1,332,000	666,000
Gasoline	369,000	333,000
Gas Oil	.....	99,000
Fuel Oil	351,000	621,000
Total	2,052,000	1,719,000

California Receipts

(Barrels of 42 gallons)

	Week Ended Jan. 24	Week Ended Jan. 17
AT ATLANTIC COAST PORTS—		
Baltimore	.....	82,000
Boston	.....	.....
New York	76,000	75,000
Philadelphia	.....	32,000
Others	.....	147,000
Total	76,000	336,000
Daily Average	10,857	48,000
AT GULF COAST PORTS—		
Total	.....	190,000
Daily Average	.....	27,143
AT ATLANTIC AND GULF COAST PORTS—		
Total	76,000	526,000
Daily Average	10,857	75,143
Daily Average Four Weeks Ended	60,679	66,857
Distribution of Total California Oil Receipts is as follows:		
Gasoline	76,000	334,000
Gas Oil	.....	192,000
Total	76,000	526,000

MARKET SECTION

United States Daily Average Production

1930	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Av.	United States Total
January	671,050	111,700	672,650	178,300	37,650	58,500	142,250	73,850	688,850	2,634,800	81,574,650
February	631,900	111,400	654,600	199,950	39,450	58,400	135,050	74,850	746,550	2,652,150	74,280,200
March	622,650	115,500	644,400	206,000	41,600	58,600	132,700	73,600	649,000	2,544,050	78,865,400
April	657,050	122,200	640,950	206,800	42,100	57,800	138,700	75,950	625,700	2,576,250	77,018,100
May	663,300	131,000	662,350	203,900	39,900	53,800	137,150	82,500	623,700	2,597,700	80,529,600
June	665,550	133,600	668,300	210,500	40,300	56,900	135,750	84,600	598,000	2,593,500	77,806,900
July	594,750	121,600	652,350	209,400	40,550	55,400	137,200	98,350	610,450	2,520,050	78,121,200
August	558,850	115,650	646,400	206,600	41,500	55,100	128,550	106,000	611,250	2,470,900	76,597,600
September	558,900	116,550	606,550	200,750	40,150	53,550	121,400	110,650	604,900	2,413,400	72,402,205
October	542,100	114,850	609,500	194,850	41,500	52,800	121,750	104,000	590,800	2,372,150	73,536,350
November	491,550	111,400	579,350	190,100	44,050	52,000	116,400	101,950	601,200	2,288,000	68,639,150
December	459,300	105,550	533,400	189,300	43,000	51,100	112,200	100,500	587,450	2,181,800	67,636,500
January 3	448,900	108,300	494,300	186,250	41,750	49,750	113,300	102,050	537,500	2,082,100	14,574,700
January 10	457,300	105,750	499,400	185,750	41,150	51,050	111,450	94,550	538,500	2,084,900	14,594,300
January 17	441,150	107,550	511,950	192,150	40,550	51,000	109,150	98,100	542,400	2,094,000	14,658,000
January 24	466,900	107,300	518,300	187,100	40,400	50,650	108,750	96,000	535,200	2,110,600	14,774,200
January 31	444,050	104,050	521,700	191,400	41,950	50,550	110,500	95,750	526,000	2,085,950	14,601,650
Increase	.....	.....	3,400	4,300	1,550	.....	1,750	.....	.....	.....	.....
Decrease	22,850	3,250	.....	.....	.....	100	.....	250	9,200	24,650	172,550

TEXAS (Outside Gulf Coast)

PANHANDLE DISTRICT

	Jan. 31	Jan. 24
Carson County	4,200	4,050
Gray County	45,400	43,400
Hutchinson County	8,950	9,750
Wheeler County	350	400
Others	350	250
Total	59,250	57,850

NORTH TEXAS

Archer County	12,350	12,300
Burkburnett	7,500	7,500
Electra	8,650	8,650
Iowa Park-KMA	3,700	3,700
Montague and Cooke Cos.	6,400	6,100
Wilbarger	13,000	13,050
North Young County	9,850	9,800
Others	1,550	1,600
Total	63,000	62,700

WEST CENTRAL TEXAS

Brown County	3,900	3,900
Callahan County	1,750	1,750
Coleman County	1,400	1,400
Eastland-Desdemona	3,950	3,950
Jack County	1,300	1,300
Palo Pinto County	400	400
Shackelford County	4,000	4,000
Stephens County	4,500	4,500
Throckmorton County	550	550
South Young County	2,200	2,200
Others	1,550	1,550
Total	25,500	25,500

WEST TEXAS

Crane-Upton Counties	26,050	28,250
Crockett County	1,900	1,800
Ector	6,500	6,800
Howard County	26,900	28,000
Jones County	1,300	1,300
Mitchell-Scurry Cos.	1,950	1,950
Pecos County	3,550	3,500
Reagan County	33,100	29,600
Winkler County	51,550	51,500
Yates	91,350	90,900
Others	6,200	6,250
Total	250,350	249,850

EAST CENTRAL TEXAS

Boggy Creek	1,900	2,200
Corsicana-Powell	5,150	5,200
Currie	300	300
Joiner District	4,550	4,650
Mexia	3,900	3,900
Nigger Creek	150	150
Richland	150	150
Van Zandt	27,450	27,400
Wortham	600	600
Others	50	50
Total	44,200	44,600

SOUTHWEST TEXAS

Chapman-Abbott	5,150	5,200
Dale	250	250
Darst Creek	32,700	30,750
Laredo District	14,800	14,800
Luling	9,700	9,700
Lytton Springs	800	800
Salt Flat	14,100	14,400
Somerset	1,300	1,300
Others	600	600
Total	79,400	77,800
T'tl Tex. (Outsde Gulf Coast)	521,700	518,300

TEXAS GULF COAST

Barbers Hill	23,650	23,450
Batson	1,100	1,100
Big Creek	2,800	2,800
Blue Ridge	1,400	1,450
Boling	900	900
Damon Mound	600	600
Esperson	2,350	2,450
Fannett	1,100	400
Goose Creek	4,350	4,300
Hankamer	2,400	2,200
Hull	7,200	7,250
Humble	10,400	10,500
Moss Bluff	800	550
North Dayton	700	500
Orange	2,100	2,100
Orchard	2,300	2,700
Pettus	7,900	7,950
Pierce Junction	10,100	9,000
Port Neches	1,500	1,600
Raccoon Bend	8,600	8,900
Refugio	30,600	29,900
Saratoga	1,100	1,100
Somerville	2,600	1,950
Sour Lake	2,150	2,200
South Liberty	2,750	2,700
Spindle Top	12,200	12,600
Sugar Land	11,900	11,500
West Columbia	4,350	4,350
Others	3,000	2,900
Total	162,900	159,900
Texas Total	684,600	678,200

OKLAHOMA

Allen	12,800	12,800
Asher	750	750
Blackwell	2,400	2,400
Bowlegs	12,200	11,950
Braman	1,850	2,100
Bristow Slick	11,900	11,800
Burbank	13,500	13,500
Carr City	13,550	11,600
Cromwell	4,450	4,400
Cushing	12,750	12,550
Davenport	900	900
Duncan District	6,800	6,800
Earlsboro	16,200	18,750
East Earlsboro	17,950	19,250
East Little River	10,500	9,950
East Seminole	1,950	1,950
Fox	950	950
Garber	4,300	4,300
Graham	2,800	2,800
Healdton	9,700	9,700
Hewitt	6,000	6,000
Hubbard	950	1,000
Konowa	17,850	16,200
Little River	21,850	22,450
Logan County	3,800	3,700
Maud	2,950	3,050
Mission	6,050	7,550
North Okmulgee	8,100	8,050
Oklahoma City	67,300	84,750
Osage (outside Burbank)	22,550	22,650
Papoose	2,100	2,100
Pearson	550	550
St. Louis	21,100	20,550
Sasakwa	4,150	4,200
Scholem Alechem	12,050	12,000
Searight	5,200	5,450
Seminole	13,000	13,600
S. Earlsboro	7,850	9,050
South Okmulgee	4,500	5,000
Thomas	600	600
Tonkawa	5,000	5,050
West Asher	8,050	10,300
Wewoka	6,500	7,000
Yale Jennings	5,500	5,550
Others	32,300	31 300
Total	444,050	466,900

CALIFORNIA

Dominguez	9,800	9,800
Elwood-Goleta	30,600	32,400
Huntington Beach	22,500	24,000
Inglewood	15,300	15,300
Kettleman Hills	25,500	22,000
Long Beach	90,000	92,000
Midway-Sunset	53,600	53,600
Playa Del Rey	35,500	37,400
Santa Fe Springs	71,000	71,200
Seal Beach	16,800	17,200
Ventura Avenue	43,000	43,300
Others	112,400	117,000
Total	526,000	535,200

KANSAS

Augusta-Fox Bush	3,100	3,200
Churchill	4,000	4,000
Eldorado-Towanda	13,150	13,400
Florence-Covert	850	850
Greenwood County	17,000	17,000
Oxford	2,400	2,400
Peabody-Ebling	1,600	1,650
Rainbow Bend	1,150	1,150
Russell	3,150	3,200
Sedgwick	18,900	19,500
Voshell	13,750	14,950
Others	25,000	26,000
Total	104,050	107,300

NORTH LOUISIANA

Caddo Heavy	2,750	2,800
Caddo Light	8,100	8,100
Carterville	1,850	1,950
Cotton Valley	1,750	1,750
DeSoto-Red River	2,800	2,800
Haynesville	5,400	5,400
Holly	850	850
Homer	3,400	3,350
Urania	4,900	4,900
Zwolle	8,700	7,000
Others	1,450	1,500
Total North Louisiana	41,950	40,400

LOUISIANA GULF COAST

Bayou Boullion	100	100
East Hackberry	3,950	3,000
Edgerly	450	400
Evangeline	700	800
Hackberry	850	850
Lake Barre	3,450	3,500
Lockport	5,400	5,150
Port Barre	1,750	1,800
Sorrento	....	50
Sulphur Dome	2,000	2,300
Sweetlake	1,100	1,100
Vinton	5,650	5,000
White Castle	1,000	1,000
Others	2,100	2,150
Total Louisiana Gulf Coast	28,500	27,200
Louisiana Total	70,450	67,600

ARKANSAS

Champagnolle	4,550	4,500
El Dorado	3,900	3,900
Lisbon	800	800
Nevada	1,000	1,000
Smackover Heavy	33,950	34,050
Smackover Light	4,500	4,500
Stephens	850	850
Others	1,000	1,050
Total	50,550	50,650

MOUNTAIN STATES

WYOMING

Big Muddy	1,900	1,900
Elk Basin	700	650
Grass Creek	2,100	2,050
La Barge	1,750	1,550
Lance Creek	150	150
Lost Soldier	3,750	3,200
Oregon Basin	2,900	2,900
Rock River	2,000	2,150
Salt Creek	25,850	26,550
Others	4,150	4,300
Total	45,250	45,400

MONTANA

Cat Creek	1,100	1,150
Pondera	1,500	1,200
Sunburst	4,500	4,450
Others	50	50
Total	7,150	6,850

COLORADO

Florence	650	500
Fort Collins	1,150	1,150
Moffats (Craig)	1,150	1,050
Others	1,750	1,800
Total	4,700	4,500

NEW MEXICO

Artesia	650	650
Balance Lea County	6,450	7,500
Eddy	100	29,450
Hobbs High	29,800	400
Hogback	350	1,050
Rattlesnake	1,250	100
Table Mesa	50	100
Total	38,650	39,250
Total Mountain States	95,750	96,000

EASTERN STATES

(Including Ill., Ind., Ohio, W. Va., Pa., Ky., N. Y.)	101,250	99,500
Michigan	9,250	9,250
Total Eastern States	110,500	108,750

PRODUCTION SUMMARY

East of Rockies	1,464,200	1,479,400
Total U. S.	2,085,950	2,110,600

MARKET SECTION

stocks of gasoline to the point where it is no longer necessary to invade the cut-price field. Normal business and retrenchment of refining operations, through the expiration of certain crude contracts, will make it possible for Rio Grande Company to effect a normal reduction in gasoline stocks. Prices of gasoline to the truck and trailer market are now 12½ cents a gallon, compared with the previous market of 10½ cents.

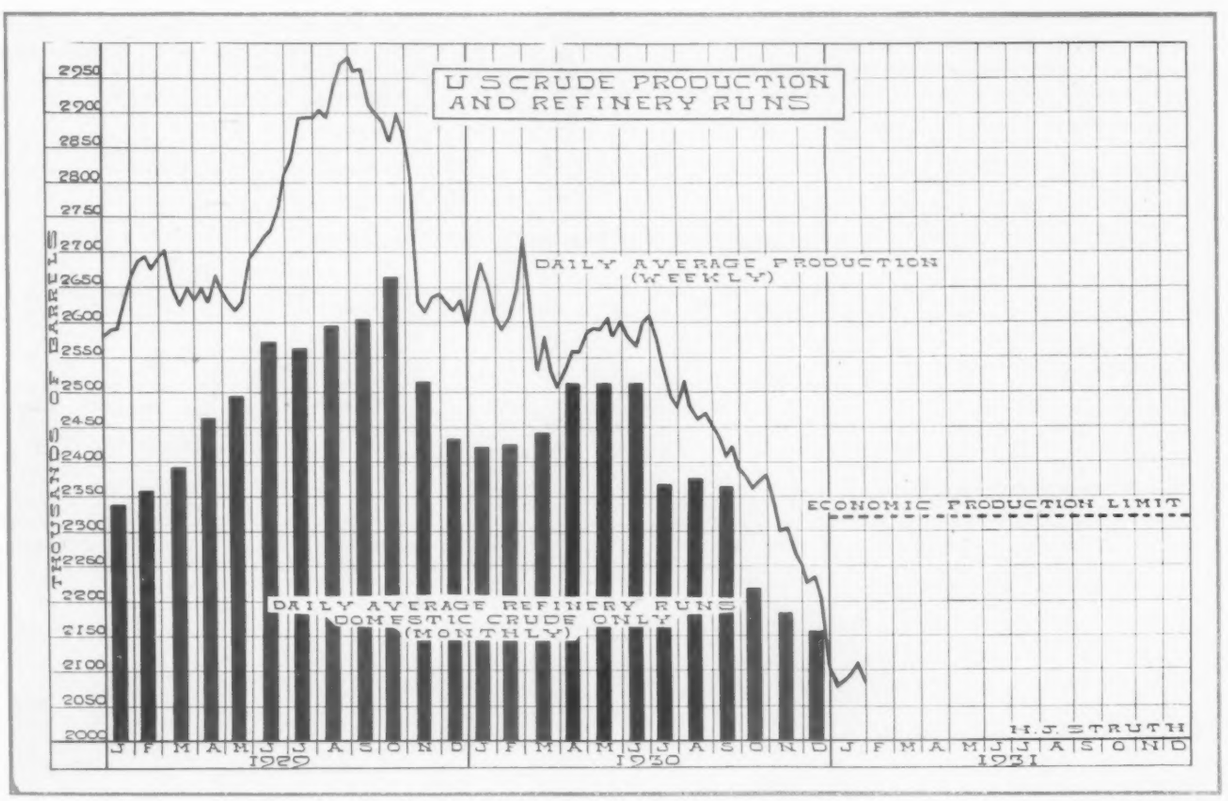
New Refinery on Houston Channel Near Completion

Storage oil held in Winkler County, West Texas district, and production of the Republic Production Company in the Hull field, Gulf Coast district, is to be used by American Petroleum Company, an affiliated concern, in operating a 2000-barrel daily capacity skimming plant now nearing completion at Norsworthy station, located on the Houston Ship Channel. Arrangements have been completed for the transfer of the Winkler County storage oil from tanks at Wink via Texas Pipe Line Company on a common carrier basis.

Sulphur crude production held by the Big Lake Oil Company in the Big Lake field is now moving by tank cars to two refineries at Winnipeg, Canada, on contract at rate of five to 10 cars daily. The company has been moving a portion of its excess output for some weeks by tank cars to the El Paso refinery of Rio Grande Oil Company, and also to Texas City terminals of Continental Oil Company. Consignments to the latter point are being made to accumulate stocks for marketing in tanker lots. This crude ranges from 46 to 48 gravity, due to the mixing of the record depth production along with the average gravity oil found in the regular lime horizon.

East Texas Drilling Plans Cause of Market Concern

Considerable speculation is being done by oil producers in all sections of the Mid-Continent, West Texas and coastal areas as to the reactionary effect on the general market to be sustained by aggressive drilling campaigns getting under way in Rusk and Gregg Counties, East Texas. This new menace to the crude market started the current week off with an actual production of about 12,000 barrels of 38 to 41 gravity oil daily, while shut-in wells and two completed wildcats are credited with being able to triple the above crude output as soon as transportation facilities are completed. Operators in the Rusk-Gregg County area have began a sincere attempt to introduce a proration plan in order to expedite the entrance of major pipe lines, thus affording some relief in the form of markets and possibly a better price than can now be had from independent crude brokers already in full control of the situation. Indications are that the majors will establish a flat price of 50 cents or more per barrel, while independent brokers are succeeding in booking their requirements at a lower level. Such prices automatically have a tendency to break down the price structure in other fields that experience competing markets with East Texas crudes. A wide distribution of East Texas crude is already assured by tank car shipments.



MARKET SECTION

Weekly Comparisons of Permits Granted for New Wells

	Week Ending Jan. 31	Previous week	This week 1930	Total this Month	This month 1930	Total this year	Total this date last year	1930 year total
Arkansas	...	..	4	4	4	4	15	108
California	...	7	13	26	13	26	70	922
Louisiana	12	3	13	42	13	42	78	948
Kansas	16	15	19	54	15	54	80	944
Oklahoma	22	25	16	119	16	119	264	2,830
Texas	75	72	80	381	80	381	732	7,052
Total	125	122	145	626	145	626	1,339	12,804

Rhode Island Refinery to Have Gasoline Line Outlet

New York City.—Standard Oil Company of New York has completed preliminary work for the construction of its only directly owned and operated pipe line system that will transport commercial gasoline from its 10,000-barrel refinery at East Providence, Rhode Island, to Worcester, Springfield and intermediate points in Massachusetts, a distance of about 100 miles. Six-inch welded pipe will be used for this system, and when completed it will have a capacity of about 5000 barrels gasoline daily, with only one pump station. The company has many thousand miles of trunk lines, including gasoline lines, being operated by controlled subsidiaries, but does not have a pipe line division. W. A. Sniffen, assistant manager, Magnolia Pipe Line Company, Dallas, was transferred to the East several months ago to take charge of the gasoline line project during its construction, and when completed actual operation will be turned over to the staff of the East Providence refinery. Construction of this begins early in the spring.

Texas Legislature Asks Tariff on Oil Imports

Austin, Texas.—House concurrent resolution Number 12, memorializes the Congress of the United States in regard to the serious condition of the oil industry in the United States, and particularly Texas, and asks for a tariff on oil and its products. This has been recommended for passage. The resolution asks for a tariff of $1 per barrel be levied on crude and 50 per cent ad valorem on refined products, or an embargo be initiated and passed for the protection of the industry.

Preliminary report of Atlantic Refining Company and subsidiaries, for the year ended December 31, 1930, shows a consolidated net profit for that period of $2,742,000, after taxes, interest, depreciation and depletion, equivalent to $1.02 per share on 2,692,854 shares of common stock outstanding. This compares with net profits during 1929 of $17,332,417, or $6.79 per share on 2,448,019 shares of common stock.

Summarized Review of Field Results

	Completions		Oil Wells		Gas Wells		Failures		Initial Prod.	
	This week	Last week	This week	Last week	This week	Last week	This week	Last week	This week	Last week
Arkansas	6	1	6	..	..	..	..	..	137	...
California	11	13	10	12	..	..	1	..	4,550	8,645
Indiana	2	10	..	2	1	1	1	..	...	140
Kansas	9	8	5	4	3	3	1	..	2,265	425
Kentucky	11	24	4	12	3	4	4	..	82	1,363
Louisiana	15	12	7	4	1	1	7	..	9,940	2,180
Michigan	1	..	..	..	1	..	..	..	...	...
Mississippi	1	4	..	..	1	2	..	..	...	...
New Mexico	2	4	2	3	..	1	..	..	8,355	16,475
Ohio	31	19	9	3	12	9	10	..	45	21
Oklahoma	40	38	20	19	6	5	14	..	118,564	79,969
Pennsylvania	16	7	12	3	2	3	2	..	27	19
Texas	94	67	46	29	7	10	41	..	52,185	7,650
West Virginia	9	15	..	7	9	7	..	..	...	41
New York	3	..	3	..	..	..	..	..	8	...
Illinois	..	2	..	1	..	..	..	1	...	2
Total	251	224	124	99	46	46	81	79	196,158	116,930
Increase	27	..	25	..	..	..	2	..	79,228	...
Decrease	..	..	..	..	..	..	..	..	...	...

MARKET SECTION

Crude Oil Price Quotations

(Revised to February 3, 1931)

▼ ▼ ▼

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Bradford—Alleghany district (posted by Tide Water Pipe Co., Ltd.) (Effective Nov. 13, 1930) $2.15
Penna. Grade Oil in National Transit Lines (Other Pennsylvania) (Effective, Nov. 13, 1930) 1.85
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania) (Effective Nov. 13, 1930) 1.80
Penna. Grade Oil in Eureka Pipe Lines (West Virginia) (Effective Nov. 13, 1930) 1.70
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O.) (Effective Nov. 13, 1930) 1.45
Corning Grade in Buckeye Pipe Lines (Ohio) (Effective Oct. 28, 1930)..... 1.25
Somerset Oil in Eureka Pipe Lines (Effective July 23, 1930) 1.14
Ragland Grade in Cumberland Pipe Lines (Kentucky) (Effective Jan. 9, 1929)... 0.60
*Oil run prior to July 1, 1929 is $2.10 per bbl.

(Posted by Stoll Oil Refining Company)

Oil City, Ky., oil in Stoll lines (Effective Nov. 8, 1930 ..... 1.00

MICHIGAN

(Posted by Dixie Oil Company)

Traverse and Dundee (Muskegon), effective April 16, 1930, same gravity and price schedule as Prairie posts in Oklahoma and Kansas, on gravity basis prior to reduction on Oct. 27, 1930.

(Posted by Pure Oil Company)

Midland, Midland County, Oct. 27, 1930..$1.10

CENTRAL STATES FIELDS

(Posted by Ohio Oil Company)
(Effective Oct. 28, 1930)

Wooster	$1.35	Princeton	1.30
Lima	1.10	Illinois	1.30
Waterloo	1.20	Plymouth	.88
Indiana	.87	W. Kentucky	1.15

CANADIAN CRUDE

(Posted by Imperial Oil Refineries, Ltd.)
(Effective October 28, 1930)

Petrolia $1.50
Oil Springs 1.57

OKLAHOMA, KANSAS and NORTH TEXAS

Prices of Prairie Oil & Gas Co., and Stanolind Crude Oil Purchasing Company, Effective Nov. 1, 1930. Carter Oil Company Same Schedule Effective Oct. 28.

Below 29	$0.65	35-35.9	.92
29-29.9	.69	36-36.9	95
30-30.9	.73	37-37.9	.98
31-31.9	.77	38-38.9	1.01
32-32.9	.81	39-39.9	1.04
33-33.9	.85	40 and above	1.07
34-34.9	.89		

Magnolia Petroleum Company Effective October 28

Below 26	.53	27-27.9	.61
26-26.9	.57	28-28.9	.65

From here to 40 and above gravity same schedule as above.

NORTH TEXAS

North Texas Crude in Wichita, Wilbarger, Archer and Northern Young counties:

All Purchasers
(Effective Jan. 14, 1931)

Below 29 gravity .....$ .55
29-29.9 ..... .57
30-30.9 ..... .59
31-31.9 ..... .61
32-32.9 ..... .63
33-33.9 ..... .65
34-34.9 ..... .67
35-35.9 69
36-36.9 ..... .71
37-37.9 ..... .73

(Continued on page 42)

California Prices

Effective September 15, 1930, at 7:00 A. M. the following are the current prices offered by
STANDARD OIL COMPANY OF CALIFORNIA

Gravity	Signal Hill	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Elwood Terrace	Torrance	Richfield	Whittier La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway-Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	Playa del Rey†
14-14.9	$ .70	$ .70	$ .70	$ .70	$ .70	$ .70			$ .70	$ .70	3 .70	$ .70	$ .70		$ .55	$ .55	$ .55	$ .55	$ .55	$ .55	
15-15.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	
16-16.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	
17-17.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	
18-18.9	.76	.76	.76	.76	.76	.76			.76	.76	.76	.71	.76		.55	.62	.62	.62	.62	.62	
19-19.9	.82	.82	.82	.82	.82	.82			.82	.82	.82	.77	.82		.55	.70	.70	.70	.70	.70	
20-20.9	.88	.88	.88	.88	.88	.88			.88	.88	.87	.83	.87			.78	.78	.78	.78	.78	$.74
21-21.9	.94	.94	.94	.94	.94	.94			.94	.94	.93	.90	.93	$.92		.86	.86	.86	.86	.86	.77
22-22.9	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	.98	.97	.98	.95		.94	.94	.94	.94	.94	.81
23-23.9	1.07	1.07	1.07	1.07	1.07	1.07			1.07	1.07		1.05	1.04	1.01		1.02	1.02	1.02	1.02	1.02	.84
24-24.9	1.12	1.12	1.12	1.12	1.12	1.12	$1.12		1.12	1.12		1.08	1.08	1.05		1.06	1.06	1.06	1.04	1.04	.87
25-25.9	1.17	1.17	1.17	1.17	1.17	1.17	1.17		1.17	1.17		1.11	1.12	1.09		1.10	1.10	1.10	1.06	1.06	.90
26-26.9	1.22	1.22	1.22	1.22	1.22	1.22	1.22		1.22	1.22		1.15	1.16	1.13		1.14	1.14	1.14	1.08	1.08	
27-27.9	1.26	1.26	1.26	1.26	1.26	1.26	1.27		1.26	1.26		1.19	1.21	1.18		1.18	1.18	1.18	1.11	1.10	
28-28.9	1.30	1.30	1.30	1.30	1.30	1.30	1.32		1.30	1.30		1.23	1.25	1.23		1.23	1.23	1.23	1.15		
29-29.9	1.34	1.34	1.34	1.34		1.34	1.37			1.34		1.26	1.29	1.28		1.29	1.29	1.29	1.19		
30-30.9	1.38	1.38	1.38	1.38		1.38	1.42			1.38		1.29	1.33	1.33		1.35	1.35	1.35	1.23		
31-31.9	1.43	1.43	1.43	1.43		1.43	1.43							1.38		1.41	1.41	1.41	1.27		
32-32.9	1.48	1.48	1.48	1.48			1.52							1.43		1.47	1.47	1.47	1.31		
33-33.9							1.57							1.48		1.53	1.53	1.53	1.35		
34-34.9							1.62	$1.32						1.53				1.59	1.39		
35-35.9							1.66	1.39						1.58				1.65	1.43		
36-36.9							1.72	1.46						1.63							
37-37.9							1.78	1.53						1.68							
38-38.9							1.84	1.60						1.73							
39-39.9							1.90	1.66						1.78							
40-40.9							1.96	1.72													
41-41.9							2.02	1.78													
42-42.9							2.08	1.84													

Ship
O. B.
F.

KETTLEMAN HILLS*	
35-39.9	$1.10
40-44.9	1.20
45-45.9	1.35
50-54.9	1.50
55 and above	1.65

*Posted by Union Oil Company. †Effective December 18, 1930.

MARKET SECTION

▼ ▼ CRUDE OIL PRICE QUOTATIONS ▼ ▼

(Continued from page 41)

38-38.9	.75
39-39.9	.77
40 and above	.79

Ranger, North Texas except as listed above, Mexia, Powell, Boggy Creek, Richland, Wortham, Lytton Springs, Currie, Moran, and Nocona crudes:

All Purchasers
(Effective Jan. 14, 1931)

Below 29 gravity	$ .65
29-29.9	.69
30-30.9	.73
31-31.9	.77
32-32.9	.81
33-33.9	.85
34-34.9	.89
35-35.9	.92
36-36.9	.95
37-37.9	.98
38-38.9	1.01
39-39.9	1.04
40 and above	1.07

PANHANDLE

All Purchasers
(Effective Jan. 14, 1931)
Gray County Crude

Below 29 gravity	$ .48
29-29.9	.50
30-30.9	.52
31-31.9	.54
32-32.9	.56
33-33.9	.58
34-34.9	.60
35-35.9	.62
36-36.9	.64
37-37.9	.66
38-38.9	.68
39-39.9	.70
40 and above	.72

All Purchasers
(Effective Jan. 14, 1931)
Carson and Hutchinson County Crude

Below 29 gravity	$ .43
29-29.9	.45
30-30.9	.47
31-31.9	.49
32-32.9	.51
33-33.9	.53
34-34.9	.55
35-35.9	.57
36-36.9	.59
37-37.9	.61
38-38.9	.63
39-39.9	.65
40 and above	.67

WEST TEXAS

Posted by All Purchasers, Effective October 28, 1930
Winkler and Pecos County Crudes:

Below 25	$ .55	31-31.9	.69
25-25.9	.57	32-32.9	.71
26-26.9	.59	33-33.9	.73
27-27.9	.61	34-34.9	.75
28-28.9	.63	35-35.9	.77
29-29.9	.65	36 and above	.79
30-30.9	.67		

Crane, Upton, Crockett, Ector, Ward, Loving, Matchell,* Howard, and Glasscock Counties, Texas, and Lea County, New Mexico crudes
Posted by All Purchasers, Effective Oct. 28, 1930

Below 25	$ .50	31-31.9	.64
25-25.9	.52	32-32.9	.66
26-26.9	.54	33-33.9	.68
27-27.9	.56	34-34.9	.70
28-28.9	.58	35-35.9	.72
29-29.9	.60	36 and above	.74
30-30.9	.62		

*Magnolia Petroleum Company uses Gravity scale and Coltex Refining Company pays flat price of 60 cents for Mitchell County.

GULF COAST

(Posted by Humble Oil & Refining Company, The Texas Company and Sun Company)

Gulf Coast Crude will be classified as follows in fields designated below:

Goose Creek, Hull, Boling, Liberty, Orange, Pierce Junction, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugar Land, West Columbia and Humble crudes:

"A" GRADE—All crudes conforming to the following tests:

Viscosity—Not less than 100 seconds at 100° F. Saybolt.

Sulphur—Not over .4%.

Beaume Gravity—Not over 25 at 60° F.

Cold test of distillates having a viscosity of 1000 seconds at 100° F, shall not be over 5° F.

"A" GRADE—$ .80.

"B" GRADE—Embraces all Coastal crude which does not meet the test for "A" grade crude:

All Purchasers
(Effective Jan. 14, 1931)

High Island	$ .75		
Grade "A"	.80		
Grade "B"			
Below 25	$ .69	33-33.9	.87
25-25.9	.71	34-34.9	.89
26-26.9	.73	35-35.9	.91
27-27.9	.75	36-36.9	.93
28-28.9	.77	37-37.9	.95
29-29.9	.79	38-38.9	.97
30-30.9	.81	39-39.9	.99
31-31.9	.83	40 and above	1.01
32-32.9	.85		
Jennings, La.	.80		
Markham (The Texas Company)	.69		

SOUTHWEST TEXAS

All Purchasers
(Effective Jan. 14, 1931)

Refugio Heavy crude, below 25 gravity	.69		
Refugio Light crude:			
25-25.9	$ .71	33-33.9	.87
26-26.9	.73	34-34.9	.89
27-27.9	.75	35-35.9	.91
28-28.9	.77	36-36.9	.93
29-29.9	.79	37-37.9	.95
30-30.9	.81	38-38.9	.97
31-31.9	.83	39-39.9	.99
32-32.9	.85	40 and above	1.01
Mirando crude	$ .69		
Salt Flat crude	.90		
Darst Creek crude	.90		
Pettus crude	1.10		
Luling	.75		
Corsicana, heavy	.75		

Determination of quality, deductions, adjustment for temperature, etc., on oil purchased in Texas, shall be in accordance with the rules and regulations of the Texas Railroad Commission, and on oil purchased in New Mexico shall be in accordance with the rules and regulations of the Corporation Commission of New Mexico.

LOUISIANA-ARKANSAS

All Purchasers Except Magnolia Petroleum Co., Effective Oct. 29, 1930
Pine Island District, Haynesville District, Bull Bayou District, El Dorado District, Rainbow District, Cotton Valley

Below 29	$ .65	37 to 37.9	.98
29 to 29.9	.69	38 to 38.9	1.01
30 to 30.9	.73	39 to 39.9	1.04
31 to 31.9	.77	40 to 40.9	1.07
32 to 32.9	.81	41 to 41.9	1.10
33 to 33.9	.85	42 to 42.9	1.13
34 to 34.9	.89	43 to 43.9	1.16
35 to 35.9	.92	44 and above	1.19
36 to 36.9	.95		
Urania, La.	.75		
Bellevue, La	1.00		

Magnolia Petroleum Company, Effective October 30, 1930

Below 26	$ .53	27-27.9	.61
26-26.9	.57	28-28.9	.65

From here prices same as schedule above.

STEPHENS

Below 29	$ .54	31 to 31.9	.66
29 to 29.9	.58	32 and above	.70
30 to 30.9	.62		
Smackover	.70		
El Dorado, East Field	.70		

ROCKY MOUNTAIN FIELDS

(Salt Creek prices effective Oct. 28, 1930)

‡Salt Creek 29-29.9	.69
" " 30-30.9	.73
" " 31-31.9	.77
" " 32-32.9	.81
" " 33-33.9	.85
" " 34-34.9	.89
" " 35-35.9	.92
" " 36-36.9	.95
" " 37 and above	.98
Elk Basin (Effective Oct. 28, 1930)	.125
Grass Creek light	1.25
Big Muddy	1.00
Lance Creek	1.33
Rock Creek	1.01
Mule Creek	1.20
Rex Lake	1.10
‡Osage (Nov. 1, 1930)	.85
‡Cat Creek, Montana	1.25
Pondera	1.45
Sunburst, Montana	1.55
‡Hogback, New Mexico	1.40
Artesia, New Mexico	.75

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

STATE CRUDE PRODUCTION TAXES

Oklahoma—Three per cent of gross value, less royalty interest.

Texas—Two per cent of gross value.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 per cent of gross market value.

Montana—Two per cent of gross value at well.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

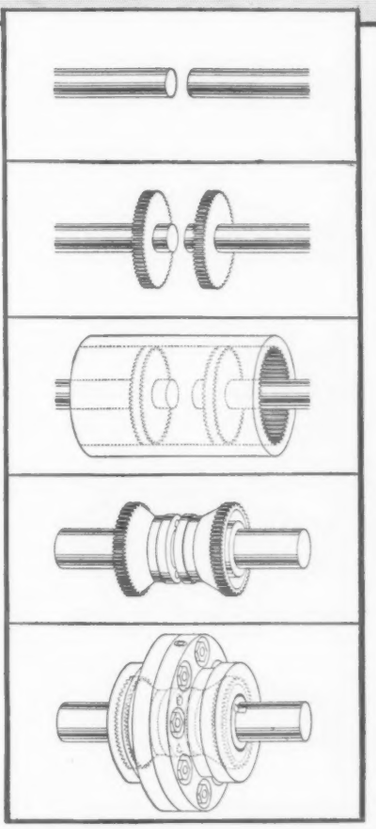
The How and Why of FAST'S COUPLINGS

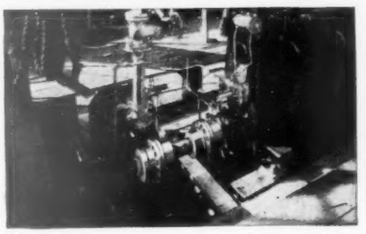
SEE the sketches showing the development of Fast's shaft coupling design. Two simple mechanical principles are used. *First, Fast's principle entirely eliminates flexible materials.* Two spur gears are in complete and continuous mesh with the internal gears of a floating sleeve. *Second, the coupling is "double engagement".* There are two compensating units—one at each shaft end, the central section of the coupling taking a neutral position. Thus any form of misalignment is compensated for without crank action or vibration.

The entire assembly rotates as one unit, the misalignment being taken up between the lubricated gear teeth. The casing is filled with oil. As the coupling revolves, the oil is distributed between the gear teeth by centrifugal and capillary action. Furthermore, due to the all-metal bearing ring design, the coupling is definitely dust-proof and will operate continuously in dust, fumes, and moisture. There is no felt, rubber or other such materials to wear and let in dust and grit.

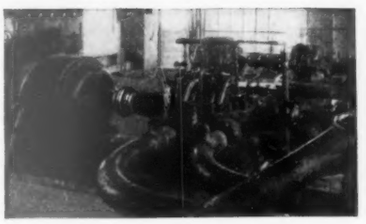
Power flows smoothly and steadily from the motor to the producing machine. Production tie-ups due to coupling or other connection failures are eliminated. Fast's Couplings become part of your permanent transmission equipment and with the same care will last as long as the connected machines.

Mail the coupon below for free copy of the new bound catalog telling the how and why of Fast's Self-Aligning Couplings. No file is complete without one.





Fast's Couplings at Mitchell Drilling Company, Oklahoma City, Okla.



Fast's Coupling at Oklahoma Pipe Line Company, St. Louis, Oklahoma

Fast's Coupling at Magnolia Petroleum Corp., Wewoka, Oklahoma

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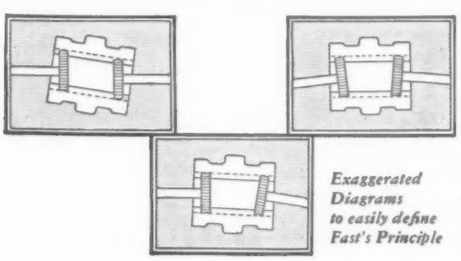

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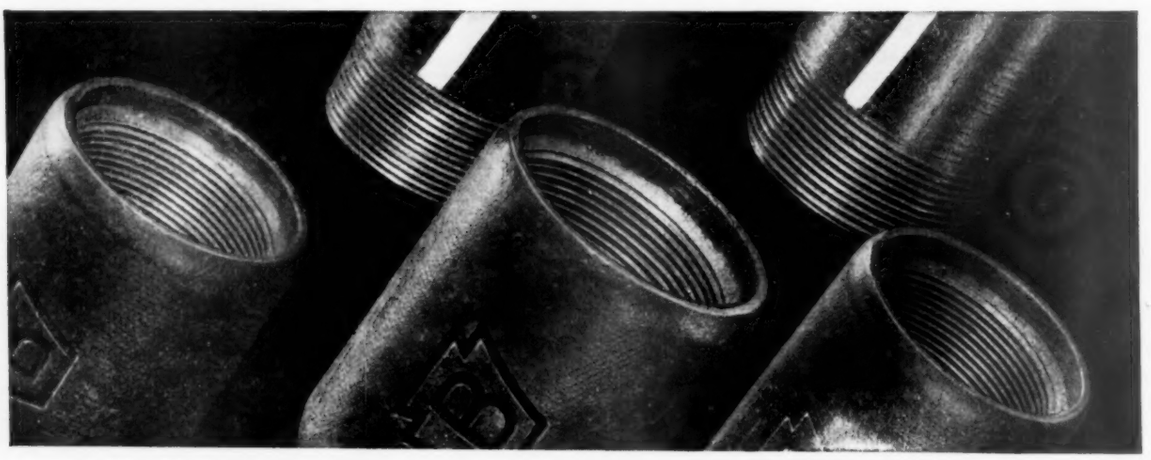

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AN INVESTMENT – NOT AN OUTLAY

The Changing Panorama

▼ ▼ ▼

Petroleum Industry Plans To Fight Railway Proposal

New York.—"It is no secret that the petroleum industry proposes to fight vigorously the proposal of the Association of Railway Executives to divorce pipe lines from oil company ownership, which, in its essence, is nothing more nor less than an effort to strangle by regulation the transportation of petroleum products and natural gas by pipe lines," states W. R. Boyd, Jr., executive vice-president of the American Petroleum Institute, in announcing the appointment by that organization of a committee of oil company executives which will handle the industry's fight.

"While the petroleum industry is and has always been in sympathy with every properly devised plan for increasing railroad earnings to maintain railroads as efficient agencies of transportation, it cannot agree that the carriers are entitled to destroy other forms of transportation merely because they render competitively the service at lower cost. In other words, to borrow language from an Interstate Commerce Commission report, 'the railroads have no more economic right to any traffic than had the canals and stage coaches which opposed the construction of railways on the grounds that they would take traffic already being carried on the canals and highways.'

"Likely the carriers would find pipe line competition increased rather than diminished if they were successful in obtaining their proposed legislation to prohibit an oil company from owning and operating pipe lines. At present oil company pipe lines are mere incidents of the company's business; they are constructed and operated merely as facilities for plants and not primarily as transportation systems for hire. The pipe lines, if separated from oil company ownership, could not go to the railroads because they would be forbidden by law to operate them. They would have to be operated as independent transportation systems competing actively with railroads for the crude oil and gasoline business, and the differential in rates would be so enormously in favor of the pipe line that nothing the railroads could do would equalize the freight rate charge in their favor.

"Pipe line transportation is a legitimate service and a natural economic development. The public is entitled to the best form of transportation at the lowest reasonable cost, and the pipe line gives just exactly that for the transportation of certain petroleum products and natural gas and the railroads have no right to complain. To infer that it might be possible to compel abandonment of pipe lines, and in doing so prohibit the transportation of natural gas which the railroads cannot carry, and to force the movement of oil products entirely by tank car is just as logical as to suggest legislation prohibiting automobiles and motor trucks from carrying passengers and freight which, but for this newer means of transportation, might move less conveniently and at higher cost by rail."

The Institute's committee includes: F. A. Leovy, chairman, Gulf Companies, Pittsburgh; Henry M. Dawes, president, Pure Oil Company, Chicago; Henry L. Doherty, president, H. L. Doherty & Company, New York; R. C. Holmes, president, The Texas Company, New York; D. J. Moran, president, Continental Oil Company, Ponca City, Oklahoma; J. Howard Pew, president, Sun Oil Company, Philadelphia; Frank Phillips, president, Phillips Petroleum Company, Bartlesville, Oklahoma; E. B. Reeser, president, Barndsdall Corporation, Tulsa; E. G. Seubert, president, Standard Oil Company (Indiana), Chicago; W. G. Skelly, president, Skelly Oil Company, Tulsa; L. P. St. Clair, president, Union Oil Company, Los Angeles, and W. C. Teagle, president, Standard Oil Company of New Jersey, New York.

Launch Effort to Prorate Rusk and Gregg Counties

Dallas, Texas.—An organized effort to hasten the introduction of a systematic proration program in Rusk and Gregg Counties, East Texas, to avoid sacrificing the flush production of the fields at under-cost prices was launched here January 31 during a meeting of active operators. Proration is now deemed necessary by the majority of the operators as the only recourse available to obtain a better market price than that being offered by numerous independent purchasers that have invaded the fields with gathering systems and tank car racks in anticipation of 30 to 40 cent oil. Application of proration restrictions will assure market relief from several major pipe line companies, and operators are hopeful that the latter will post and pay a reasonable price for the 38-41 gravity crude. The meeting was presided over by M. W. Blair, Wichita Falls operator, who has leases in Rusk County in process of development. More than 25 were present at the meeting.

Other than the appointment of committees that will take definite steps February 5 to determine a proration policy when a joint session is held at Tyler with a committee of 25 previously appointed from the ranks of East Texas lease and royalty owners and business men, the Dallas meeting was confined to general discussions as to the urgent need for proration. This committee of 25 was appointed by State Senator Tom Pollard as result of a mass meeting held in Tyler January 15, but because of the delay in taking action the operators called an advance meeting in Dallas to expedite some relief.

The Dallas group elected a committee of 17 tentatively to serve as a proration advisory committee, then this committee selected seven of its members to meet with a like number of members of the Tyler committee of 25 to perfect a proration plan immediately after the Tyler meeting at noon February 5. Carl Estes, Tyler newspaper editor, is chairman of the large committee, while W. B. Hamilton, Wichita Falls producer and operator in Rusk County, was elected chairman of the two committees resulting from the Dallas meeting.

The proration rules committee of seven includes Hamilton and J. S. Bridwell, Bridwell Oil Company; John R. Suman, Humble Oil & Refining Company; Jake Hamon, Cox &

Hamon; H. L. Hunt, Hunt Oil Company; E. G. Allen, Shell Petroleum Corporation, and H. R. Dickinson, Arkansas Fuel Oil Company. The proration advisory committee includes the above and W. A. Moncrief, Fort Worth producer; J. E. FitzPatrick, Deep Hock Oil Company; John F. O'Donohoe, Federated Oil Company; Geo. D. Foster, Devonian Oil Company; E. R. Tennant, receiver for C. M. Joiner interests; Pete R. Smith, Pure Oil Company; M. B. Sweeney, Sun Oil Company; Geo. Calvert, Broderick & Calvert; W. L. Todd, Simms Oil Company, and a representative of Gulf Production Company to be designated later. Plans are to add other names as development of the field expands.

Penn Attends Meeting

Robert R. Penn, Dallas, chairman of the central proration committee for Texas, was present at the meeting by invitation. Penn predicted that only a few of the large oil companies could survive an active drilling program in the Rusk-Gregg County district and accept prices for crude that are now being offered by purchasers. He stated that operators in all fields of the country will suffer in event East Texas is allowed to continue without restrictions on either drilling or production, and that it is a matter of great public interest to see that the threatened flood of oil is checked.

Statements appearing in newspapers crediting Harry F. Sinclair, chairman of the board, Sinclair Consolidated Oil Corporation, with having intimated that his company would invade the Rusk-Gregg County district with a major development program were condemned by Penn as being harmful to proration efforts. Penn warned the operators that many prospective crude buyers were standing by to take the oil at prices that would disrupt the entire crude market structure, and that the only way to prevent such a disaster would be to prorate all wells on an equitable basis.

W. L. Todd, vice president, Simms Oil Company, Dallas, spoke favorable for the inauguration of proration, and quoted figures that were based on his company's experience in developing leases in prorated and non-prorated fields to prove the economic value of proration.

Carl Estes, Tyler editor, was an invited participant of the meeting, and he convinced the oil operators that he has undergone a change in viewpoint as to the merits of proration and conservation in the East Texas fields after having fought proration efforts through his newspapers until several weeks ago. Agitation of anti-proration leaders in the district has been a factor in delaying action, as the oil operators hesitated on getting crossed up with the citizens of the community. Such a condition is almost unprecedented in oil circles, as the operators paid large cash bonuses for their drilling rights in nearly every instance, and must bear the entire cost of development and operations. Prospects of a very small return from royalty interests with crude actually selling in the Joiner field now at about 40 cents per barrel is having its effects on farmers and business men.

Hamilton pointed out that the opponents of proration got a running start on the oil operators before proration could be worked out, and he expressed an opinion that fair minded citizens could now be counted upon to support proration. He stated that he was trying to interest adjoining lease owners to leases now being developed by a group of associates in forming a pool, thus cutting down unnecessary offsets and reducing general overhead. Hamilton said that his group have a test ready to complete, but have been unable to obtain a pipe line connection and buyer except at 35 and 40 cents per barrel.

John F. O'Donohoe stated that his associates have two drilling tests, and no visibile market outlet, except at buyers' prices. He predicted that if proration is not adopted soon that they would not make a profit from the adventure, and probably would be lucky to get the investment back. E. G. Allen stated that Shell Petroleum Corporation acquired approximately 28,000 acres of leases in the district during early development, and felt good over the prospects, but now the same holdings threaten to become a serious burden because of the danger of having to gut same with unrestricted drilling and production. C. W. Hardin, representative of H. L. Hunt and associates, who are facing a heavy drilling program in the Joiner field, stated that the group were heartily in favor of proration.

Talks favoring proration were also made by Pete R. Smith, Pure Oil Company; J. S. Bridwell Oil Company; George Calvert, Fort Worth; Chas. F. Roeser, Roeser-Pendleton, Inc.; J. M. White, Jack Roberts and Roy Jenkins.

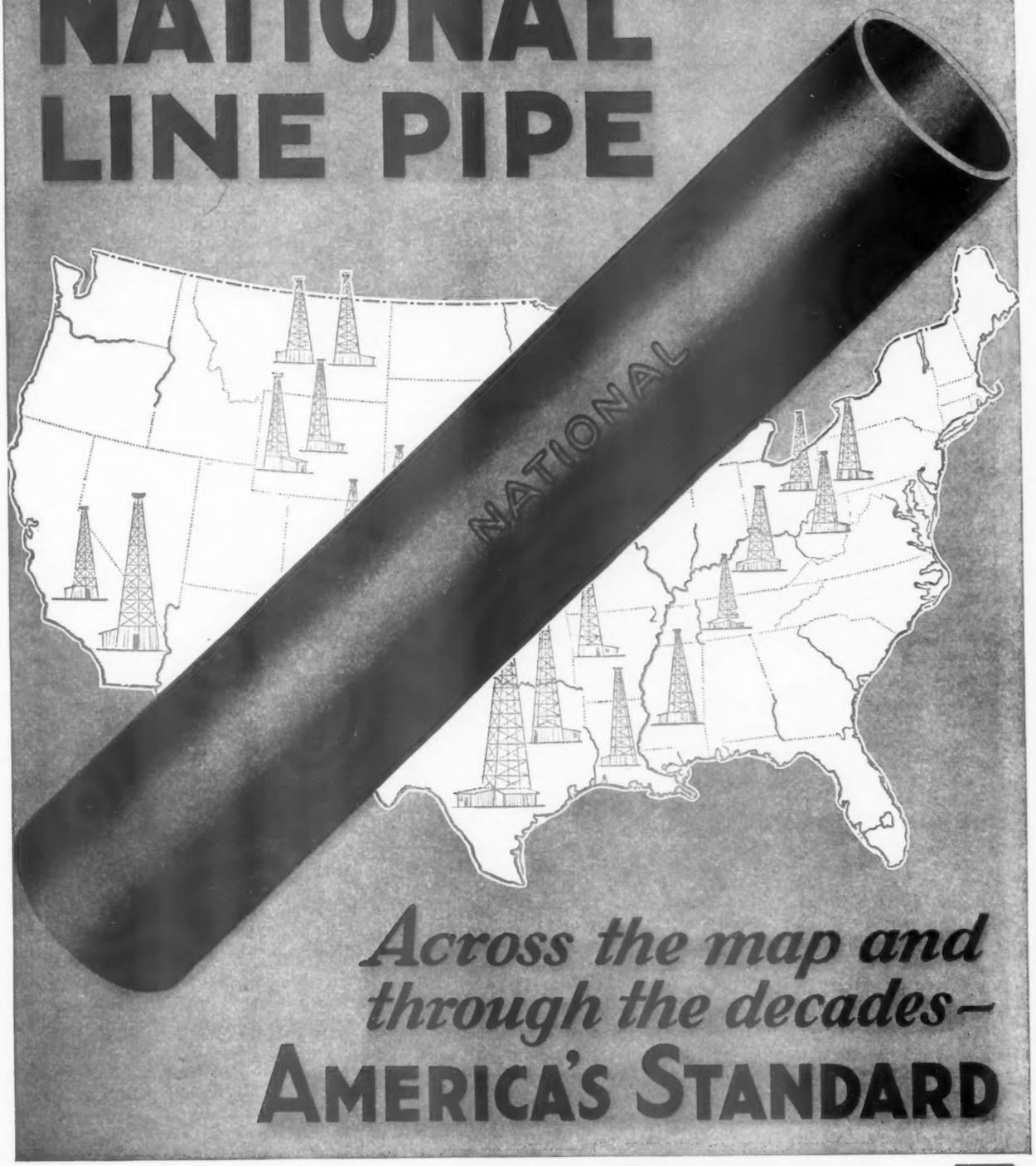
Low Price Offered

A canvass of operators present revealed that independent buyers with tank car racks and gathering lines completed and building into the fields are offering an average of 40 cents per barrel on contracts, while some are insisting on five-year contracts at such a price level. Entrance of major pipe lines into the fields will result in a price scale being posted, and it is hopeful that such will be based on the current market value of the sweet oil that the district offers. Probably major pipe line companies are awaiting assurance of a proration plan before entering with line, but it is quite probable that Magnolia Pipe Line Company, Sinclair-Texas Pipe Line Company, Stanolind Pipe Line Company, Gulf Pipe Line Company, The Texas Pipe Line Company and Shell Pipe Line Company will be connected to the district within six months. Humble Pipe Line Company is already at work in laying a 10-inch trunk line to its properties in the Kilgore field, Rusk County, with a 13-mile extension from its Van unit, and will later build a second line to tie into its Corsicana-Mexia unit, thence to the Gulf Coast.

Operators Representatives Attend Proration Meeting

The following attended the Dallas proration meeting: R. W. Adams, Jr., Pure Oil Company, Fort Worth; E. G. Allen, Shell Petroleum Corporation, Dallas; J. Beren, Standard Pipe Supply Company, Dallas; J. S. Bridwell, Bridwell Oil Company, Wichita Falls; Al Broderick, Broderick & Calvert, Inc., Fort Worth; Geo. Calvert, Broderick & Calvert, Inc., Fort Worth; B. C. Clardy, Shell Petroleum Corporation, Dallas; J. L. Collins, Wheelock & Collins, Corsicana; David Donoghue, technical adviser, central proration committee, Fort Worth; Carl Estes, Tyler editor; Geo. D. Foster, Devonian Oil Company, Tulsa; W. B. Hamilton, Wichita Falls; Jake L. Hamon, Cox & Hamon, Ardmore, Oklahoma; C. W. Hardin, H. L. Hunt Oil Company, Henderson; Roy Jenkins, Dallas; Wallace Jenkins, Dallas; W. T. Knight, Consolidated Oil Company, Wichita Falls; J. H. Massie, Wichita Falls; John F. O'Donohoe, Federated Oil Company, Wichita Falls; Robt. R. Penn, Penn Oil Company, Dallas; Jack B. Robert, Robert Oil Corporation, Breckenridge; Chas. F. Roeser, Roeser & Pendleton, Inc., Fort Worth; Pete R. Smith, Pure Oil Company, Fort Worth; M. B. Sweeney, Sun Oil Company, Dallas; W. L. Todd, Simms Oil Company, Dallas; J. M. White, Ed. M. Jones interests, San Antonio.

NATIONAL LINE PIPE



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Geologists to Meet in Tulsa, December 28-31

Tulsa.—The Geological Society of America will hold its 1931 annual meeting in Tulsa, December 28 to 31 inclusive. There will also be some field trips, which will extend through January 4, 1932. This organization also has invited the American Association of Petroleum Geologists to meet jointly for these dates.

The Mayo hotel will be headquarters for all technical sessions as well as the annual smoker and dinner. Other hotels of the city will provide accommodations for visiting geologists.

Special field trips will be arranged to study special features of the geology and oil fields of Oklahoma. These trips will be taken December 28 and January 1 to 4 inclusive. The trips will include the Spavinaw area, east of Tulsa, the Ozark mountains, Arbuckle mountains, Wichita mountains, Ouachita mountains, the Oklahoma City oil field and surface structural conditions of the Cushing oil field.

Membership of the Geological Society of America is about 600, while the membership of the American Association of Petroleum Geologists is 2540.

The Tulsa Geological Society will be host for the joint meeting in Tulsa. Local geological societies of Tulsa, Oklahoma City, Shawnee and Ardmore will be hosts for the field trips of the joint session.

Frank R. Clark, Mid-Kansas Oil & Gas Company, Thompson building, Tulsa, will act as general chairman for all local arrangements. Communications should be addressed to him. General arrangements for the meeting will be in charge of Professor Charles P. Berkey, secretary, Columbia University, New York; for economic geologists, Professor Edward Sampson, secretary, Princeton, New Jersey.

Officials of the Geological Society of America are: president, Professor Alfred C. Lane, Tufts College, Boston; vice-presidents, Professor Thomas L. Walker, Toronto, Canada; Dr. Henry B. Kummel, Trenton, New Jersey; Professor E. R. Cummings, Indiana University, Bloomington, Indiana; Professor Alexander H. Phillips, Princeton, New Jersey: secretary, Professor Charles P. Berkey, Columbia University, New York; treasurer, Professor Edward B. Mathews, Johns Hopkins University, Baltimore.

Shell Director Makes Plea for Continued Curtailment

London. — In an open letter, J. B. Aug. Kessler, managing director, Royal Dutch Oil Company, calls attention to the present critical condition of the policy of conservation in the United States, and advises that all crude oil producing countries with the exception of Russia and Roumania are adhering to a policy of conservation.

Excerpts from his letter follow:

"The decision of Prairie Oil & Gas Company to stop buying crude oil has apparently brought the whole matter to a crisis, and there is a grave danger that conservation may come to an end at any moment.

"Those who advocate bringing conservation to an end are, I think, inclined to see things in too dark an aspect.

"All crude oil producing countries with the exception of Russia and Roumania are subscribing to conservation at present. This is a great achievement, and should not be lost sight of. It means that all the crude oil producing countries with the exception of Russia and Roumania have been working to the same end, and it also means that if conservation comes to an end in the United States it will come to an end in all the other crude producing countries, and over-production will be that much worse, and the results will be accordingly.

"As to Roumania there has been conservation in that country from July, 1930, to December, 1930. Notice of their intention to terminate the conservation agreement was given by Steaua Romana, and the result has been a serious over-production since the beginning of December, 1930.

"There remains only Russia amongst the oil producing countries where no conservation is being applied or contemplated. I need not say much about Russia. Their position in the oil market is no different from their position with regard to any other commodity that they can produce. It is useless to expect them ever to 'play the game' in anything.

"Those who have lost their confidence in the beneficial effect of conservation often claim that the only way to bring things back to reasonable conditions is to let free competition take its course, and to let the law of supply and demand settle things.

"The theory that the free application of the law of supply and demand is the only sound cure is, in my opinion, old-fashioned and out-of-date. It was right in the past when industry was organized on relatively small scale, but now that industry is organized on a much larger scale it no longer applies in the same way, and I want to explain briefly why.

"The cost price of a product made, let us say, in the nineteenth century by old-fashioned methods of production, consisted of a large item in out-of-pocket expenses, and a relatively-speaking small item in standing charges. If a product cost at that time $1 per unit, let us say, perhaps 70 cents would be out-of-pocket expenses and 30 cents standing charges, which, of course includes interest and amortization on the capital employed.

"In modern industry this proportion is entirely different. If a product costs at present $1 to make, the out-of-pocket expenses are very likely not more than 30 cents and the standing charges 70 cents. One has only to visualize how things were made at the time, with a lot of manual labor and simple equipment, and that those same things are at present made with much less manual labor and very complicated equipment, to realize that my statement as above is correct in principle.

"Now what is the result of this change in the proportion between standing charges and out-of-pocket expenses? If, in the past, the law of supply and demand was allowed to apply freely it meant that as soon as the sales price of the product which I had in mind in the above illustration dropped to below 70 cents, the production was restricted automatically, and therefore the cure had started to work.

"My conclusion therefore is that the modern equipment of industry brings with it the absolute necessity of voluntary arrangements for conservation of production in times of over-production.

"Taking everything into consideration, in my opinion there is only one solution for the oil industry, and that is conservation and co-operation. And do not let us despair about the results obtained up to now. I agree that in money the results for the producers have not been good, but still they have been much better than they would have been if there had been no conservation, and the fact that all countries with the exception of Russia—and I hope temporarily with the exception of Roumania—subscribe to conservation, means that sound foundations have been laid for a much brighter future. Do not let us waste these foundations, but let us build on them."

Kansas Governor Threatens More Action in Oil Crisis

Topeka, Kansas.—Threats of action on the part of the State of Kansas in behalf of owners of stripper oil wells were contained in messages sent January 28 to President Hoover and to E. G. Seubert, president of Standard Oil Company (Indiana). The message to President Hoover was to the effect that unless the oil companies could solve the Kansas situation, the only hope lay in a tariff.

In the message to the president of Standard Oil Company (Indiana) Governor Woodring made it clear that his purpose was "to reach all factors in the Kansas situation." In this message the Kansas governor said "whatever is possible for the state government to do to save the situation, whatever legal steps or police power lies in the hands of Kansas, will be utilized with the utmost of vigor."

These messages were sent following reports that the conference called in Washington by Secretary of Commerce Lamont had failed to reach any solution for taking the remainder of oil from stripper wells in Oklahoma and Kansas. E. B. Reeser, president of the American Petroleum Institute, said he thought that all but some 5000 of these wells would finally have connections.

The message of the Kansas governor to President Hoover follows:

"Kansas is appalled at the news that the Washington oil conference failed to provide a remedy for the deplorable situation which threatens this group of more than 12,000 producing oil wells destroying a production of 25,000 barrels a day and a potential waste of more than 200,000,000 barrels of oil yet in the ground.

"The big producers responsible for this devastation of a principal industry of the state are opposing a tariff on oil. While they are laying waste the Kansas oil fields they are importing oil from foreign lands offering as the indefensible excuse for refusing the Kansas product that they have an over-supply from other countries.

"If the tariff policy of the Republican party means anything it should mean protection for home industry and especially an industry in which is involved the policy of the of the conservation of a great natural resource.

"If the great leaders of the oil industry moved by avarice and self-interest refuse to adjust the intolerable situation confronting the Kansas fields then a tariff on oil holds out the only hope in sight as the solution to our problem.

"I am wiring today an appeal to the Standard Oil Company (Indiana) in the name of the thousands of oil producers who face economic ruin, in the name of a great section of the state of Kansas whose prosperity will be destroyed, and with the purpose of averting the disaster incident to throwing thousands of additional men out of employment, for a renewal of the efforts to reach an adjustment which will prevent the disaster in Kansas. I most respectfully and fervently urge you to supplement this appeal."

"Kansas Will Not Sit Idly And See Life Squeezed Out"

The message to E. G. Seubert, president of Standard Oil Company (Indiana) follows:

"I am astonished and appalled at the news from the oil conference in Washington to the effect that the promise held out to us for several weeks that the Kansas fields would be protected has failed. I want to urge upon you the great necessity of renewing the negotiations for the restoration of the Kansas stripper wells at once.

"Kansas will not sit idly by and see the very life squeezed out of its oil industry and the ruin of a large number of its oil producers and a catastrophe to a large section of the state. While the large oil interests are laying waste to the Kansas fields they are importing oil from foreign lands, offering as the indefensible excuse for refusing the Kansas product that they have an over-supply from other countries. Why would it not be possible for you to cease taking through your subsidiary, Pan-American Petroleum Company, the same amount of oil you are refusing in Kansas?

"Moreover, Kansas refuses to be the victim of a controversy between the present subsidiaries of the old parent Standard company. I have been conservatively trained in the business world and I am opposed to governmental interference with private business. But this situation presents a challenge to every right-thinking man involving as it does the old monopolistic system.

"As governor I am determined that no stone shall be left unturned to protect the Kansas oil product. The large oil interests cannot hope to hold Kansas by the throat with one hand and choke the life out of its crude oil industry with the other hand. It is taking the money out of the pockets of the people of Kansas for its own product. Whatever is possible for the state government to do to save the situation, whatever legal steps or police power lies in the hands of Kansas will be utilized with the utmost vigor. Time is the essence of the present critical situation because of the imminent destruction of the Kansas stripper wells. Hence, I urge with the utmost emphasis that the Kansas stripper wells be hooked up with some pipe line facilities not later than February 10.

"All details as between Prairie Oil & Gas Company and Prairie Pipe Line Company and your company are your problems. I am appealing to you as the representative of the biggest figure in the oil industry connected with the Kansas situation to solve this problem without the necessity of governmental interference, but if appeals fail every resource of the Kansas government will be invoked to get the desired results.

"While I am addressing this appeal to Standard Oil Company (Indiana), my purpose is to reach all factors in the Kansas situation."

Seubert Says His Company Has Taken Lead in Relief

Friday of last week the president of Standard Oil Company (Indiana) sent the following reply to the Kansas governor:

"Replying to your telegram received on my return we are astonished at your singling out Standard Oil Company (Indiana) when we have been doing everything possible to aid the owners of stripper wells. As was stated by President Reeser of the American Petroleum Institute in the conference called by Secretary of Commerce Lamont, January 20, in Washington and agreed to by all representatives present, Standard Oil Company (Indiana) has taken the lead in offering relief to producers in the area affected. Our subsidiaries are buying about 16,000 barrels of oil a day of the amount formerly marketed through Prairie Oil & Gas Company. We cannot buy more oil directly from producers in Kansas because the wells are too distant from our gathering lines. We tendered an order for an additional 3000 barrels a day from Prairie Oil & Gas Company to be supplied from Kansas distress wells. We are ready to buy this additional oil even at the expense of paying their marketing, gathering and trunk line charges which means paying a substantial premium. No other company has done anywhere near so much. Prairie Oil & Gas Company has refused our

offer and we possess no means of compelling them to accept.

"Standard Oil Company (Indiana) has no power to influence the action of other companies in regard to the problem of relief for distress wells. While we are doing more than any other company, we cannot settle the problem alone. It is unfair for you to ask us to do the impossible. Why do you not call upon the other companies to give relief as we have already done? We also respectfully point out that any threat against our marketing operations in Kansas as unfair and detrimental to Kansas industry.

"The gasoline we sell in your state comes from Kansas refineries employing Kansas labor and buying crude from Kansas producers exclusively. Not one barrel of imported oil is in any way affecting the Kansas situation. Not one barrel of oil from Kansas wells would take the place of oil that is imported if imports were to stop because other domestic sources would have the economic advantage. Standard Oil Company (Indiana) has co-operated and is now co-operating for the best interests of the people of Kansas. It deserves credit and support for what it is doing, rather than requests to do impossible things.

"Further relief must come from the others concerned. Our representatives will always be available for information or conference."

Senator Nye Proposes to Investigate Oil Charges

Washington, D. C.—Appointment of special senate committee to make "a thorough investigation of the charges which are being made so freely by independent operators—unfavorable charges, some of them," with a view to determine conditions in the oil industry, was proposed by Senator Gerald P. Nye of North Dakota, January 24, following a length speech on chain stores and their activities, during which he asserted that the independent oil operator is in much the same position as the independent merchant.

Quoting from a letter sent him by J. Edward Jones, and citing other leaders in the independent oil industry regarding conditions, Senator Nye asserted that a thorough investigation is necessary. However, he added, he himself did not have time to serve on such an investigating committee.

Senator Nye's resolution would provide for an investigation to determine "the cause or causes of the low price of crude oil in the United States and the margins between the price of crude oil and the selling price of the products of crude oil.

"Whether said conditions have resulted in whole or in part from any contract, combination, in the form of a trust or otherwise, or conspiracy in restraint of trade and commerce among the several states and territories or with foreign countries.

"Whether said prices have been controlled, in whole or in part, by any corporation, joint stock company, or corporate combination engaged in commerce among the several states and territories or with foreign nations.

"Whether such corporation, joint stock company, or corporate combination, in purchasing crude oil, gasoline and other petroleum products, by any order or practice of discrimination, boycotts, black lists, or in any manner discriminates against any particular oil field.

"The organization, capitalization, profits, conduct and management of the business of such corporation or corporations, company or companies, and corporate combinations, if any.

"The stocks of crude oil, gasoline and other petroleum products at refineries or elsewhere in the United States at the close of each year for the years 1928, 1929, and 1930, and the holders or owners thereof.

"Whether any combination, agreement, understanding or other relationship exists between corporations, joint-stock companies or combinations engaged in the oil industry and corporations, joint-stock companies, or combinations engaged in the operation of pipe lines and local public utilities, and, if so, the effect of said relationship upon the production and sale of crude oil, gasoline and other petroleum products in the United States.

"The profits of companies refining and marketing petroleum in the United States for the years 1928, 1929 and 1930, and the component elements of said profits.

"All other facts as bear upon the recent changes in price of crude oil, gasoline or other petroleum products or upon any of the foregoing matters."

Engineering Societies Announce Meeting Dates

Los Angeles.—The Pacific Coast divisions of the various engineering societies whose members are active in the several branches of the petroleum industry have set the dates for meetings which will be held during the second Annual Oil Equipment and Engineering Exposition. This exposition will be held from March 16 to 22, 1931, in Los Angeles and will be the only oil show during the entire year.

The discussions of operating methods and the application of equipment to meet the many problems confronting the industry are of great value to everyone interested in oil. All visitors at the exposition get the benefit of these discussions since the meetings will be open to all and every oil man—whether he is interested in drilling, production, transportation or refining—is invited to attend.

The present schedule of meetings to be held in Los Angeles during the time of the exposition is given below. Several other societies will also hold sessions and their dates will be announced as soon as they can be arranged.

March 17—American Welding Society; March 18—American Institute of Mining and Metallurgical Engineers; March 19—American Society for Steel Treating (tentative date); March 19—California Natural Gasoline Association; March 20—American Petroleum Institute, division of production, and March 20—Southern California Meter Association.

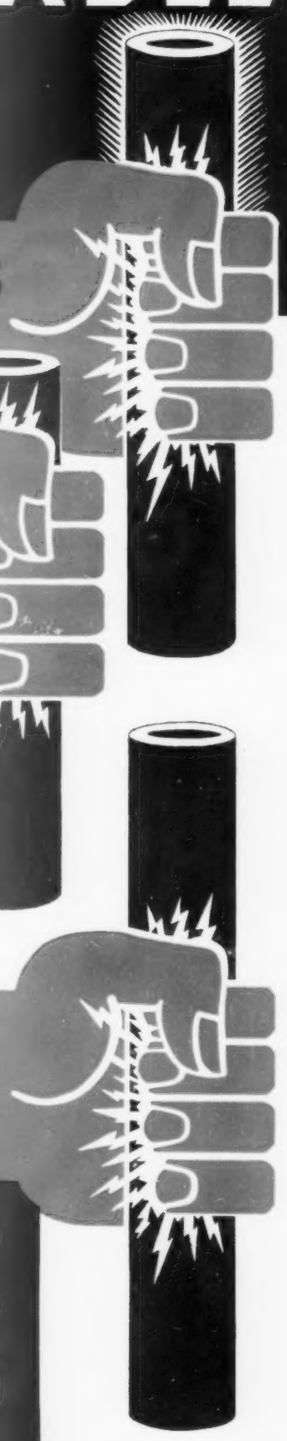
All of the above meetings will be held at the exposition grounds except those of the California Natural Gasoline Association and the American Petroleum Institute.

An assembly hall has been provided by the exposition and this will be devoted exclusively to the use of the engineering societies. It is 80 feet by 40 feet and will be equipped with a permanent screen for the showing of slides or motion pictures. During the second annual exposition a projector will be furnished for the use of all who need it.

Several of the meetings will include a dinner. Catering service has been provided for this purpose in connection with the restaurant facilities for which arrangements have been made. The restaurant itself will be housed in a 100 feet by 40 feet extension to the main building and will serve meals at all hours during which the exposition is open.

Besides its technical meeting, the American Welding Society will also put on a demonstration. This will include both the electric arc and the oxy-acetylene methods of welding and will show the application of both to the many jobs in all phases of the oil industry where welding can be advantageously used.

A MOST REMARKABLE RECORD



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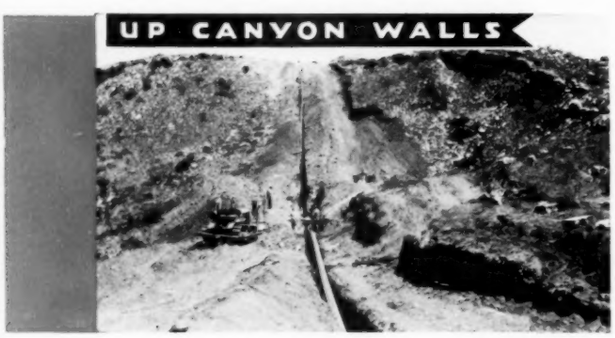

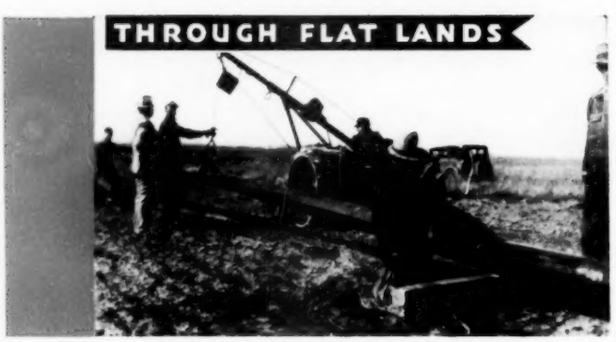

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Unitization and Proration Feature A. I. M. E. Program

New York.—Unit operation of oil pools in the United States and abroad and proration of oil production will be the outstanding features of the annual meeting of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, to be held in New York, February 16 to 19, inclusive. This year's program carries numerous important papers by men prominent in production and refinery engineering. It also includes a number of informative papers on economics, as well as valuable reviews of production throughout the world.

The Petroleum Division of the Institute has planned six sessions, the first of which will be a joint session on engineering research and production engineering. Succeeding sessions will cover production trends, unit operation of oil pools, proration, economics and production and refinery engineering. There will also be the annual dinner, held at the Commodore Hotel, Thursday evening, followed by a general session on engineering, economics and review of world production.

Following is the tentative program of the Petroleum Division of the Institute:

Tuesday, February 17, 2 P.M.

Joint Session Engineering Research and Production Engineering, H. H. Hill, chairman; W. K. Whiteford, associate chairman.

Permeability Studies of Pennsylvania Oil Sands—By Charles R. Fettke and W. A. Copeland.

Methods and Effects of Unit Repressuring in the Cook Pool—By C. P. Crutchfield.

Production Studies of the Deep Wells in the Big Lake, Texas, Field—By Kenneth S. Ritchie.

Problem of Proration on Basis of Gas Energy—By Eugene A. Stephenson.

Practical Interpretation of Core Analysis—By L. S. Panyity.

Petroleum Research and Educational Facilities in Great Britain—By Ernest R. Lilley.

Wednesday, February 18, 9:30 A.M.

Domestic Production Review, D. R. Snow, chairman.

Michigan, Indiana, Illinois, Ohio and Kentucky—By R. B. Newcombe and R. A. Smith.

Eastern District—By J. French Robinson.

Rocky Mountain District—By R. Clare Coffin.

Texas (General)—By M. G. Cheney.

Texas, Louisiana and Gulf Coast—By L. P. Teas.

Kansas and Oklahoma—By Henry Ley.

Louisiana, Arkansas and Mississippi—By H. K. Shearer.

California—By B. E. Parsons.

Texas Panhandle—W. E. Hubbard and H. E. Crum.

2 P.M.—Foreign Production Review—H. J. Wasson, chairman.

Argentine—By Gilbert P. Moore.
Africa—By W. B. Heroy.
Bolivia—By Gilbert P. Moore.
Canada—By L. C. Snider.
Trinidad—By William J. Millard.
Colombia—By J. T. Duce.
Mexico—By V. R. Garfias.
Irak—By B. B. Cox.
Peru—By O. B. Hopkins.
Roumania—By Ionel I. Gardescu.
Russia—By B. B. Zavoico.
Venezuela—By Charles W. Hamilton.

Thursday, February 19, 9:30 A.M.

Unit Operation of Oil Pools, Earl Oliver, chairman.

Unit Operation in Foreign Fields—By E. L. Estabrook.

Proposed Unit Operation Plans in California—By Joseph Jensen.

Proration in Texas—By David Donoghue.

Some Legal Aspects of Unit Operation—By W. P. Z. German.

Co-operation Between Engineers and Lawyers—By Peter Q. Nyce.

2 P.M.—Petroleum Economics Session, Warren Sinsheimer, chairman.

The Economics of the Crude Oil Potential—By Joseph E. Pogue.

Business Guidance Through Studies of Speculation—By Barnabas Bryan.

Gasoline, Its Relation to Petroleum Economics—By H. J. Struth.

Stabilization of the Petroleum Industry—By Leonard Logan.

6:15 P.M.—Petroleum Division Dinner—Engineers Club.

8:15 P.M.—General Session—C. V. Millikan, chairman.

Annual Summaries of Production Engineering, World Production, Economics, and Refinery Engineering.

Corrosion Among Subjects For Western Metal Congress

San Francisco.—An open invitation to oil men, and especially those in the West, to attend the Western National Metal Congress and Metal and Machinery Exposition, February 16 to 20, in Exposition auditorium, San Francisco, has been extended. Announced as an educational and non-profitmaking affair, based on a plan of bringing about the usage and understanding of better metals and machines, the arrangements for the event now are reported nearing completion. Admittance will be free, both to the congress of metallurgical and machine experts and to the displays of machinery and metals of all kinds, according to W. H. Eisenman, secretary of the American Society for Steel Treating.

Due to the general nature of the different programs, Eisenman said, these sessions will apply to almost every industry, and particularly to petroleum production or handling.

In particular, there will be talks on corrosion prevention that are expected to add considerable longevity to the machines now in use, and in contrast, there will be talks on new metals, nitrided products, new chromium and other alloys that are particularly alloyed or otherwise treated to withstand the onslaughts of corrosion.

These talks, it is said, will be aimed to serve the oil field, refinery, tank farm and other divisions of the petroleum industry.

Thirteen different technical societies have picked speakers to appear before audiences in the general move for an era of better machines and metal products.

Topeka, Kans.—In a petition filed January 29 with the Kansas Public Service Commission, J. Edward Jones, who has extensive royalty interests in the Mid-Continent, is seeking discontinuance of proration regulations in Kansas. The pleading is that proration is in effect an agency of the larger companies through which they control oil output in the United States while foreign oil is imported.

Tariff Opposition Offered By Pan American Official

Washington, D. C.—Repeal of the antitrust laws as a means of relieving present conditions in the oil industry, instead of embargoes or tariffs, was advocated February 2 by R. G. Stewart, New York, president of Pan American Petroleum Transport Company. Mr. Stewart said that he believed the repeal of antitrust laws would be beneficial because the companies could then get together and work out problems confronting the industry.

Questions by Senator Johnson (republican, California), drew from the witness that Pan American Petroleum & Transport Company has been importing for 20 years, and that it holds 2,500,000 acres of oil land in fee and under leases in Mexico, together with about 3,000,000 in Venezuela. Mr. Stewart said that the company's Mexican production last year was 26,000 barrels a day, with a refining capacity of 120,000 barrels. In Venezuela, he said that it had a 105,000-barrel production and a refinery capacity of 130,000 barrels. He said that the amount of oil that the company would import this year would depend on the demand and that Mexican oil furnished a large proportion of asphalt. He said that he anticipated that this company would import 12,000,000 barrels of fuel oil and 8,000,000 barrels of gasoline.

The witness said that the evident purpose of the Capper bill, which would prorate imports to not more than 20 per cent of imports in 1928, was to increase the price of crude oil. He said that he never knew it to fail that when the price of crude oil went up it resulted in an increase in the price of gasoline. Asked if it ever worked the other way around, he said that it did, but not all at once.

Albert C. White, Taunton, Massachusetts, vice-president of the associated industries of that state, in adding his opposition to the Capper bill, said that its adoption would not aid the Mid-Continent producers, because it would force the industries of his state to return to coal. The witness said that he also believed it would cause retaliation on the part of South American countries, whose trade the Massachusetts textile interests are trying to hold.

Plans worked out during the war but never put into effect because of fear of government prosecution were revived February 3 at the final hearing by Mark L. Requa of California, who advocated the establishment of a federal agency to which oil producers might go for approval of working agreements, which approval would carry with it immunity from prosecution under the antitrust laws. Operation under such agreements, he pointed out, could be under scrutiny of the government which could revoke its approval if they were found not to be operating in the public interest.

Discussing proration, Requa declared that American production should not be shut in and imports remain unrestricted, but, he added, that is only one phase of the situation. At the same time, he said, he was doubtful of any results from proposed legislation divorcing pipe lines from other activities. His proposal to give immunity from antitrust proceedings would be incorporated in a law providing that "no act of agreement shall be held to be unlawful if such act or agreement has been taken or made in pursuance of any permission of the board after a finding by the board that such act or agreement will tend to aid conservation of the petroleum resources of the United States and be in the public interest, and while such permission remains in force and unrevoked, and not surrendered."

The industry, he declared, could achieve far greater results by co-operation than by an action mandatorily imposed by congress.

"Rational control of the natural resources", he indicated, "was the chief thing to accomplish. The proposed legislation would not accomplish this."

Further opposition to any tariff on imports was expressed by representatives of eastern consuming interests, particularly the home oil burner and artificial gas industries.

Passage of Capper Bill Sought By Independent Producers

Washington, D. C.—Passage of the Capper oil import proration bill would be of material aid to the independent oil producers and refiners, the Senate commerce committee was told January 29 by Orville Bullington, Wichita Falls, Texas, at the first hearing given the oil industry at this session of Congress.

A gloomy picture of the depression existing in the independent oil industry in the Mid-Continent field, with 300,000 wells facing extinction and a daily wage loss due to unemployment of the oil workers amounting to $600,000, was sketched for the committee by representatives of the independent producers during the hearing.

Figures presented by Dr. Ralph Arnold, geologist of Los Angeles, showed that this country has sufficient oil resources to last at least 500 years, based upon present production and consumption.

The Capper bill would curtail imports of foreign crude oil to about 16,000,000 barrels a year for the next three years and would place an absolute embargo upon the importation of refined petroleum products. The committee also had under consideration a bill introduced by Senator Shortridge (Republican), California, that would place a tariff of $1 a barrel on imported oil. The Senate committee was headed by Senator Johnson (Republican), California.

Oil production in this country was about evenly divided between the large companies and the independents, according to Mr. Bullington. He added, however, that better than 100,000,000 barrels of oil were imported last year, of which about half in refined products. Under questioning by the committee Mr. Bullington admitted that an embargo or tariff would officially partially relieve the present situation; that their real need was legislation separating the big companies into their various integrated parts, which are production, transportation and marketing.

In answer to the question as to whether the proposed tariff would increase the retail price, the witness explained that there is a large margin between the tank car and the tank wagon prices, and that none of these, including both gasoline and oil, had fluctuated in relation to the price of the crude product.

Dr. Arnold told the committee that nine-tenths of the oil wells in the United States had been developed by independent "wild catters," but that despite this the big companies took all the profits due to their control of pipe lines, refineries and marketing agencies, while the independents took all the losses.

Both witnesses agreed that there is no relationship between the price of crude oil that is received by the producers and the price of gasoline. Mr. Bullington declared that he would offer testimony citing instances where gasoline has increased in price in the various cities of the country on the same day that the big companies ordered a reduction in the price of crude oil.

Asked if the independents were at the mercy of a controlled price, Mr. Bullington said, "I don't like to say so, but we have our suspicions." He said that the cost of distribution is heavy and that there are too many filling stations in the country.

Oklahoma Committee Accused Of Being Pro-Sinclair

Oklahoma City.—The attitude and activities of Harry F. Sinclair concerning proration, held the spotlight of Oklahoma governmental circles today. His attitude came through a long statement, which was read into the record of the hearing of the corporation commission on the proposition of increasing the output of the Oklahoma City field. His activities came into question through some pointed statements by Governor William H. Murray, who indicated that three members of his special oil committee were dominated by Mr. Sinclair.

Although the statement of the governor had no bearing on proration, it injected a question into what will be the outcome of his methods for recommending remedial legislation. The committee was named for the purpose of recommending possible changes in statutes. A majority report is ready and understood to be in the hands of the governor, although unsigned. He said the minority members desired to make a report. In talking with reporters concerning the report, he said he was beginning to suspect influence from the Sinclair quarter.

"You have two Sinclair men on the committee, haven't you?" he was asked.

"I'm afraid I have but I didn't know it in the beginning," he replied. "You know E. B. Howard's position. He's under another name but he's Sinclair. So is Pat Malloy and I'm beginning to suspect that Owens is too."

Mr. Malloy is special counsel for Sinclair Oil & Gas Company. Mr. Howard is president of an organization of independent producers in Oklahoma. C. A. Owens was selected as chairman of the committee by the governor, who designated the chairman as a wildcatter, who would have no affiliations.

In petroleum circles the attitude of the governor is accepted as an indication that he will pay no heed to what this committee may report. His statement prior to acceptance of its reports is taken in this fashion.

Will Seek Conference

Although no statement to the effect was made, those well informed say the Oklahoma governor will seek a conference with the governors of Texas and of Kansas as a means of determining what sort of legislation should be provided for the petroleum industry.

Shortly after the governor gave his opinions public expression, Pat Malloy asked that the corporation commission permit a statement of the attitude of Sinclair Oil & Gas Company toward proration to be put in the record of the hearing in progress as to the raising of allowed output for Oklahoma City.

This statement was to the effect that it was never the purpose of the Oklahoma conservation statutes to throttle the oil industry, fix prices and force the state into a position of helplessness as a producer and marketer of oil. Another contention was that the practice of proration resulted in price fixing, although the price of oil has dropped in Oklahoma under proration. The method of determining the market demand for oil was challenged on the basis that the demand is ascertained from those who are interested in minimizing the output of the field. The market, according to the statement, should be determined by those in position to deliver crude oil rather than by those who seek to buy. In regard to the market the statement read:

"The increase to 10 per cent in the allowable production of the Oklahoma City field is fully justified and should be granted as a matter of right and equity. While we have joined in the plea for an increase to 10 per cent at this time, it was with the reservation that a further increase might be found necessary. We can not too strongly emphasize our contention that increased markets can not be located in advance. The Oklahoma City producers are entitled to the same opportunity that any producer must have, first to be assured of freedom to supply and then to re-establish his markets and find new outlets."

Methods Questioned

Methods of taking potentials at Oklahoma City were questioned. The present low percentage of output was attacked as a source of underground waste.

When questioned later by Chairman Paul Walker, Mr. Malloy said Sinclair Oil & Gas Company had 2,300,000 barrels of empty storage at Oklahoma City and less than that total elsewhere. Mr. Malloy said Sinclair Oil & Gas Company would consider purchasing oil from other producers. Later he intimated that such purchasing would be at prices lower than those prevailing now.

In questions to witnesses the chairman left no doubt that a matter of vital concern at this time is the waste of gas incident to producing oil at Oklahoma City. Proponents of the increase insist that the greatest use to which gas can be put is in lifting oil.

The hearing was resumed Tuesday in the hope of completing testimony but the cross-examination of witnesses, who testified last week, consumed so much time that the hearing had to be continued.

Although Mr. Sinclair was the foremost individual before governmental agencies at Oklahoma City, he was not present, he remained in Tulsa, where he is supposed to be considering some transactions of considerable importance.

Seek to Divorce Pipe Lines From Rest of Oil Industry

Washington, D. C.—Divorcement of oil pipe lines from the producing, refining and marketing end of the industry would be required under a bill introduced in Congress by Representative Homer Hoch (Republican, Kansas), January 28.

Considered to be in furtherance of the campaign of the independent oil industry for relief from its present depressed condition, Mr. Hoch's bill would require oil pipe lines to operate as common carriers and subject them to the Interstate Commerce act.

In a statement explaining the measure Mr. Hoch said that it is the business of the pipe lines to transport oil, no matter who offers it, and without discrimination, and that they should have no interest beyond transportation.

"And yet we find a few big companies with vast interests as producers, refiners and distributors, owning and operating the pipe lines," Mr. Hoch said. "Such ownership and control of pipe lines makes possible a strangle hold upon the industry. Through unreasonable regulations and conditions imposed by the pipe line companies they can discriminate in favor of their own interests as producers or refiners.

"Many years ago a similar situation existed with reference to the railroads and the ownership of coal properties. Big railroad companies were fast controlling the coal mines and dominating the coal industry. To meet that evil Congress passed in 1906 a law compelling the railroads to confine themselves to the business of transportation and to divorce themselves of their coal properties. I propose to apply to the pipe line companies exactly the same principle which was applied to the railroads."

Oil and Gas Pipe Line Activities

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Atlantic Buys Pipe Line From Refugio to Coast

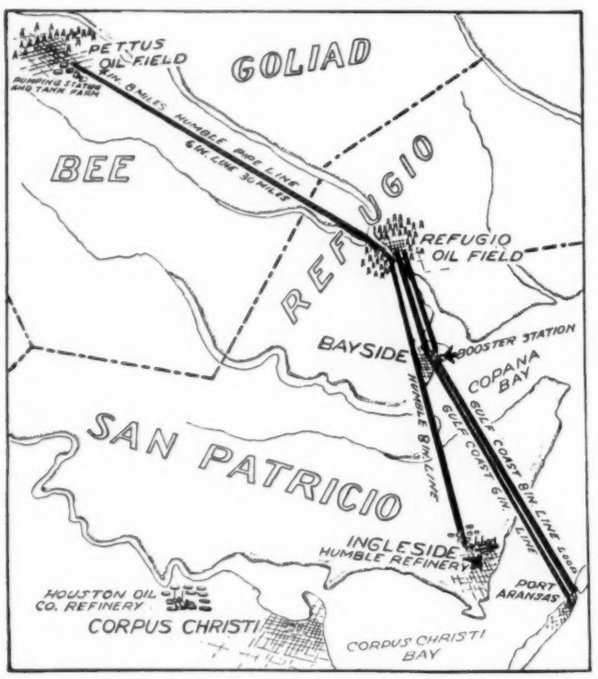
Houston.—Subsidiaries of Atlantic Refining Company have become important factors in the Gulf Coast crude market situation as result of recent purchases of principal pipe line outlets at Refugio as well as Barbers Hill, the two largest producing fields along the coastal plains.

Effective February 1, the Atlantic interests purchased principal physical assets of Gulf Coast Pipe Line Company from the Moody-Seagraves-Morgan Company for reported consideration of $4,000,000. The properties involved include a 32-mile looped oil line from Refugio field to Aransas Pass, consisting of eight-inch and six-inch carriers; tanker loading terminal at Aransas Pass; two pump stations along the line, one at Refugio and the other at Bayside, midway to the terminal; and steel storage in excess of 750,000 barrels.

Capacity of the pipe line is rated at 40,000 barrels daily, and the system has recently been handling around 30,000 barrels daily, runs from Refugio field constituting a large percentage of total runs, but some additional crude coming into the system at Refugio via the Humble Pipe Line Company carrier from Pettus field.

Storage involved in the purchase included four 55,000-barrel steel tanks and two 80,000-barrel tanks at Refugio field tank farm and seven 55,000-barrel tanks at the tidewater terminal.

Atlantic Pipe Line Company will operate the pipe line, and Atlantic Oil Producing Company will function as the purchaser of the crude, adopting posted prices of Humble Oil & Refining Company. The only other pipe line connection to Refugio is the 28-mile eight-inch carrier of Humble Pipe Line Company to Ingleside, and that line has a 38-mile combination six-inch and four-inch extension northward from Refugio to Pettus field.



Showing South Texas Pipe Lines, including the one acquired by Atlantic Pipe Line Company.

While it has sold the Refugio system, withdrawing from the Refugio-Pettus district as a buyer and transporter of crude, Moody-Seagraves-Morgan Company retains Gulf Coast Pipe Line Company as a pipe line subsidiary and Gulf Coast Oil Company as its crude purchasing subsidiary, proposing to handle crude from other fields in the Corpus Christi district, including White Point and Saxet. The same interests will also continue as producers in the Refugio and Pettus areas as well as in the Corpus Christi district, the producing subsidiary being the Moody-Seagraves Producing Company. That concern has present production around 10,000 barrels daily, principally in the Refugio field. Principal headquarters of the Moody-Seagraves-Morgan Company are at the Smith-Young Tower, San Antonio.

The Gulf Coast Pipe Line Company has been the principal transporter of Refugio crude since oil was discovered in that field. Its original line, a six-inch carrier, was built in 1929 and it was the sole pipe line outlet until February, 1930, when looping of the line with eight-inch pipe was completed. Humble Pipe Line Company completed its line to the field in May, 1930.

Details regarding Atlantic Pipe Line Company's acquisition of the line out of Barbers Hill field from the Mills Bennett interests were published in The Oil Weekly, January 9, 1931, that transaction having been consummated January 3.

Entrance of the Atlantic interests on a large scale into the Gulf Coast crude market is no doubt actuated partially by the saving in transportation costs in placing crude aboard tankers for consignment to the Atlantic coast refineries of Atlantic Refining Company. Atlantic Pipe Line Company has a 10-inch carrier extending from the heart of West Texas (with an eight-inch extension into Hobbs), to terminals at Atreco on the Gulf Coast, but a posted tariff of 52½ cents per barrel applies in moving oil from wells in that area to aboard ships at Atreco (40 cents trunk line, 10 cents gathering, and 2½ cents tanker loading charges).

At the same time the move of the Atlantic interests reflects the generally prevailing confidence that other important fields are yet to be developed in the Refugio-Pettus area. The production from those pools has proved relatively popular because of the natural anti-knock qualities of the crude oil; and prior to purchase of the pipe line out of Refugio, the Atlantic interests had assured themselves of continued supply of oil from both Pettus and Refugio, contracting with the Moody-Seagraves-Morgan interests for purchase of 5000 barrels of Pettus crude daily and 7000 barrels daily from Refugio throughout 1931, with deliveries to be made through the pipe line system of Gulf Coast Pipe Line Company, although purchase of the line itself was not made until February 1, as stated above.

Great Lakes Personnel to Be Moved to Kansas City

Ponca City, Oklahoma.—D. J. Moran, president, Great Lakes Pipe Line Company, has announced that the entire personnel of that company, consisting of approximately 50 in the office force and 50 in the operating department, will be moved from Ponca City to Kansas City on January 30. The entire second

floor of the Fairfax Airport building will be occupied by the new offices and all operations will be directed from that point.

The new board of directors includes, E. B. Reeser, chairman of the board and president of Barnsdall Oil Corporation; D. J. Moran, president, Continental Oil Company; Harry Moreland, vice-president and general manager, Great Lakes Pipe Line Company; J. J. Cosgrove, general counsel, Continental Oil Company; A. H. Riney, chief engineer, Phillips Petroleum Company; H. M. Edinger, sales manager, Barnsdall Oil Corporation; E. O. Bartlett, vice-president, Barnsdall Oil Corporation; J. C. Denton, general counsel, Mid-Continent Petroleum Corporation; A. F. Winn, general traffic manager, Skelly Oil Company, and A. C. Harvey, general counsel, Pure Oil Company.

The line from Ponca City through Barnsdall to Kansas City was completed and water tested January 16 to January 25 and first gasoline pumped to Kansas City on that date. Construction is under way on 11 of the 21 pumping stations along the line from Ponca City through Barnsdall to Kansas City, Des Moines, Minneapolis-St. Paul, Chicago and Milwaukee. Work has also been started on stations on spur lines to Okmulgee and Muskogee and to Omaha. The entire line is scheduled for completion on April 15 with a total capacity of 300,000 barrels of gasoline and storage capacity of 1,300,000 barrels of gasoline. The company is capitalized at $18,000,000.

Associated Oil Plans 60-Mile Gasoline Line

San Francisco.—Associated Oil Company will start construction of a gasoline line from mid-state fields of California to the Pacific seaboard about February 15. The project involves construction of 60 miles of six-inch 16.234 pound, Grade "A" seamless steel pipe.

This line will start in the North Belridge field, go thence via Lost Hills and Kettleman Hills to Coalinga, where it will connect with an existing six-inch line which traverses the mountain and valley regions between Coalinga and Monterey Harbor.

Part of the job involves reconditioning approximately 90 miles of pipe which has been used for the past 28 years in transportation of crude from the Coalinga fields to tankage at tide water. Since the original construction was of lap weld with screw joints, and because of the age of the line, decision was made to weld all collars to pipe, to insure non-escape of gasoline.

The initial combined lines capacity in pumping from Belridge to Monterey will be 5000 barrels per day. This amount will be handled by one pumping plant located in the Belridge area. Later it is proposed to double the capacity by the installation of a booster plant near Coalinga. Further increases in pumping rates can later be developed, if required, by installation of still additional units along the line.

The new line will handle production of the Associated Oil Company at Kettleman Hills and Belridge, and the production of Reward Oil Company, a subsidiary now drilling at Belridge.

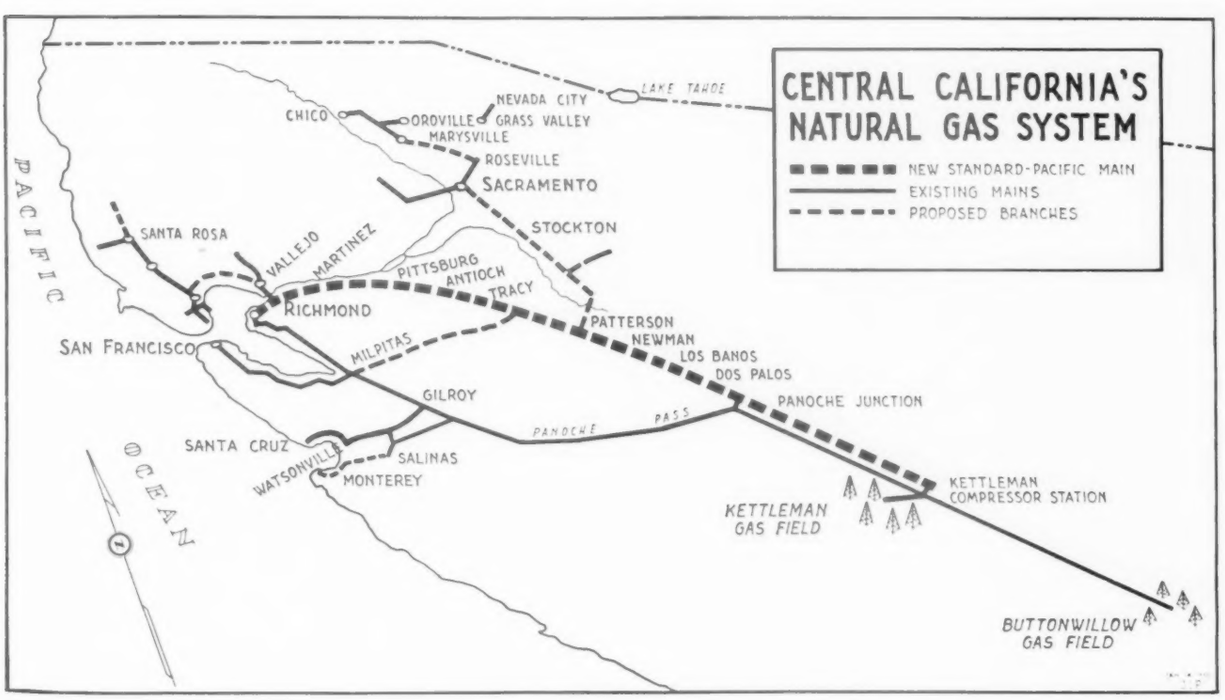
Gas Lines Predominate in California Construction

Gas line construction in California during 1930 completely overshadowed oil line work, the trend which was definitely established during 1929 having carried through the past year. The development of Kettleman Hills and the depression in the oil industry have been responsible for the predominance of gas line construction which has led to a network serving the principal industrial centers of the state. The building of new lines and paralleling of the older ones was started two years ago, and 1930 saw the culmination of several important projects. Oil line construction was extremely limited, work along this department having fallen even below that of several previous lean years.

Kettleman Hills has all but changed the pipe line system of California, particularly with reference to the distribution of natural gas. With this field as a nucleus, a vast network of transmission lines has been completed and the center of mileage has shifted to a point sharply to the north. Oil lines probably will be added as the field is developed.

The outstanding pipe line project of the year was the

(*Continued on Page 75*)



News of the Natural Gas Industry

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Cooper-Bessemer Tandem Units Ordered for El Paso Gas Line

New York.—An order for eleven 800-horsepower gas engine compressors, each capable of handling 21,000,000 cubic feet of natural gas daily, has been received by The Cooper-Bessemer Corporation from the Western Gas Company of El Paso, a subsidiary of the El Paso Natural Gas Company, according to B. B. Williams, president of the engine company. The total consideration was placed at $375,000.

Five of the new engines will be used on a $6,000,000 extension running from El Paso to Douglas and Bisbee, Arizona, and Cananea, Mexico, via Deming, New Mexico. The line will be comprised of a 12-inch welded main good for 925 pounds of working pressure. One battery of three units will be placed on a present line near Fort Bliss, Texas, and another group of like power will be installed north of Sierra Blanca, Texas.

On the new line, the engines will be placed at El Paso and Lordsburg, New Mexico, and will serve natural gas to the copper smelters of the Phelps-Dodge Corporation, the Calumet & Arozona Copper Company and the Greene-Cananea Copper Company, a division of Anaconda. The pipes will be installed and ready for service June 1, under the direction of Bechtel & Kayser of San Francisco and the engineering organizations, Ford, Bacon & Davis and Stone & Webster.

The whole series of engines, known as twin tandem, double-acting, direct connected units, are of the same design as the 1000 and 1500-horsepower compressors built by The Cooper-Bessemer Corporation for a majority of the natural gas lines in this country, Mr. Williams stated.

McManus to Manage New Gas System in South Louisiana

Houston.—D. S. McManus, for the past six years superintendent of gas, water and buses of the Gulf States Utilities Company and the Louisiana Electric Company at Lake Charles, has been appointed division manager of the Southwest Louisiana division of United Gas Distribution Company, a unit of the United Gas System, it was announced by J. V. Strange, vice president.

McManus will have the management of United Gas Distribution Company's new division in 40 towns and cities in Southwest Louisiana to be served by a pipe line now being constructed by United Pipe Line Corporation, also a United Gas System unit. The new line runs east from Kirbyville, Texas, to Franklin, Louisiana, a distance of 158 miles. Lateral lines, 265.5 miles in length, will lead off from the main line at six places.

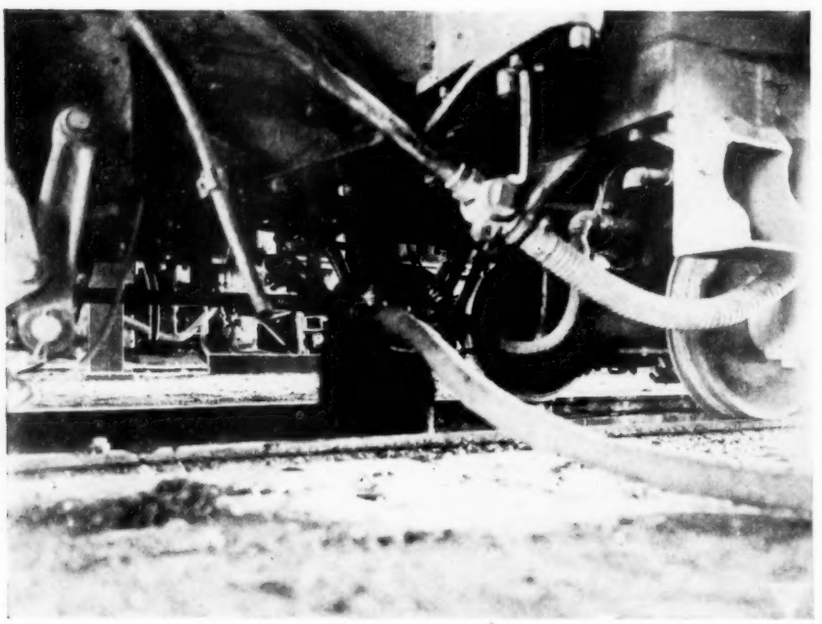
McManus will maintain offices in Lake Charles for the present, according to the announcement. Prior to his employment in Lake Charles, in 1924, when Stone and Webster took over the public utilities, McManus was employed by the Houston Electric Company for four years.

Installation of equipment to pre-heat railroad locomotives with natural gas was recently installed at the Louisiana and Arkansas Railway's roundhouse at Shreveport, Louisiana. The system will pre-heat four engines per day and approximately one million cubic feet of natural gas is used monthly. However, officials of Southern Cities Distributing Company which supplies the gas, point out that these figures will vary according to the tonnage of the locomotives pre-heated.

Four advantages of pre-heating with natural gas are listed as follows: first, the cost is lower than in other methods; second, natural gas is cleaner than other fuels; third, the fuel is not paid for until after it is used and there is always an abundant supply; and fourth, an engine can be pre-heated in much less time.

The expense involved in changing from one fuel to another was negligible as much of the same burning equipment used when pre-heating was done with fuel oil is employed with the natural gas method. The operator fires through the same firing valve. An overhead gas system was installed in the roundhouse with drops between each of the engine stalls. From these drop connections a hose attachment has been made and is connected directly to the oil line that is standard equipment on all L. & A. locomotives.

The accompanying illustration shows how the connections for using the natural gas are arranged.



Hook-up for pre-heating locomotives with natural gas.

Many New Gas Lines From Louisiana Area

Shreveport, Louisiana.—Gas lines from the Monroe field to the Southeastern States were the principal new construction of lines for this area during 1930. This was a continuation of important construction started the previous year which will make Louisiana gas eventually available to widely separated areas, from St. Louis on the north and the Atlantic on the east.

In December, 1930, United Production Corporation acquired from Southern Natural Gas Corporation its 12-inch line which branched off the Monroe-Atlantic line at Pickens, Mississippi, and extends to Mobile, Alabama, with laterals extending to Gulfport, Biloxi, Hattiesburg, Laurel and Canton, Mississippi, and to Bogalusa, Louisiana. The Mobile line is also being extended to Pensacola, Florida. A gathering system is being built to hook up with the Mobile line in the Jackson field and use the latter's field output. Previously the line was served with gas from the Monroe and Richland fields. A 16-mile, 10-inch line has been laid from Jackson to Terry, Mississippi, which eventually will be extended to Brookhaven and McComb, Mississippi, and other Southwest Mississippi towns.

Two other large gas companies—Missouri-Kansas Pipe Line Company through Pocahontas Natural Gas Company, and Arkansas Pipe Line Company, have entered the Jackson field on a comparatively large scale and doubtless eventually will secure line outlet from the field.

The following table lists lines constructed in the area during 1930:

To	From	Kind	Size	Miles	and type
Arkansas Louisiana Pipe Line Company					
Bernice, La.	Ruston (trunk)	gas	4″	25	coupled
Carlisle, Ark.	St. Louis trunk	gas	4″	3¼	coupled
Dardanell, Ark.	St. Louis trunk	gas	4″	3	welded
England, Ark.	St. Louis trunk	gas	4″	7	coupled
Hamburg, Ark.	St. Louis trunk	gas	4″	8¼	coupled
Lonoke, Ark.	St. Louis trunk	gas	3″	7½	coupled
Stuttgart, Ark.	St. Louis trunk	gas	6″	14	coupled
Star City, Ark.	St. Louis trunk	gas	3	6¼	coupled
Warren, Ark.	St. Louis trunk	gas	4″	8¼	coupled
Monticello, Ark.	St. Louis trunk	gas	4″	7	coupled
Linden, Texas	Jefferson (trunk)	gas	2″	13	welded
Omaha, Texas	Daingerfield	gas	2″	2	welded
Naples, Texas	Jefferson (trunk)	gas	3″	10	welded
Ringgold, La.	Bisteneau field	gas	3″	6	welded
Shreveport, La.	Bisteneau field	gas	6″	7	welded
Ashdown, Ark.	Saratoga (trunk)	gas	4″	5¼	welded
Queen City, Tex.	Texarkana (trunk)	gas	3″	1	welded
Southern Natural Gas Corporation					
Atlanta, Ga.	Monroe, La.	gas	22″	500	w/c
Mobile, Ala.	Pickens, Miss.	gas	12″	200	w/c
Gulfport, Miss.	Mobile trunk	gas	8″	75	w/c
Canton, Miss.	Mobile trunk	gas	8″	15	w/c
Laurel, Miss.	Mobile trunk	gas	6″	20	contemplated
Bogalusa, La.	Mobile trunk	gas	8″	90	contemplated
Pensacola, Fla.	Mobile trunk	gas	10″	100	bldg.
Amory, Miss.	Aberdeen, Miss.	gas	10″	50	bldg.
Standard Pipe Line Company of Louisiana					
Cartersville	Haynesville	oil	4″	12	screw
Urbana, Ark.	ElDorado	oil	6″	15	screw
Holly, La.	Oklahoma trunk	oil	4″	4	screw
United Pipe Line Company					
Rodessa, La.	Pine Island, La.	gas	10″		contemplated
Sugar Creek, La.	Monroe trunk	gas	8″		contemplated
Mississippi Industrial Gas Company					
Terry, Miss.	Jackson, Miss.	gas	7″	16	
McComb, Miss.	Jackson, Miss.	gas	7″	84	contemplated

Work under construction on Continental 24-inch gas line in Western Kansas. Bechtel and Kaiser, Ltd., pipe line contractors, had the contract on this portion of the line. This is an All-steel pipe line winch on Caterpillar tractor.

Butte, Mont.—Since a court decision was rendered here on the validity of a natural gas franchise granted Montana Power Company, the company will go ahead with its plan to pipe natural gas from the Northern Wyoming and Southern Montana fields to Anaconda, Butte, and other communities, by way of Helena. This line would be 250 miles long and would cost $15,000,000. Gas would be taken, it is reported, from Elk Basin, Polecat, Garland, Bryon, Oregon Basin, Badger Basin and Pilot Butte.

Idaho Falls, Idaho.—A certificate to supply natural gas to Boise, Nampa, Caldwell, Meridian, Emmett, and Weiser, Idaho, is being asked by United Utilities Corporation. Although the company has not drilled any wells or developed any production, it plans to drill two wildcat tests, one a few miles southwest of Ontario, Oregon, and one a few miles from Pickle Butte, Idaho.

Great Falls, Mont.—An extension of its network of gas lines in North and East Montana is planned by Northwest States Utilities Company, subsidiary of Minnesota-Northern Power Company. The new system would supply gas to communities in the western part of the state. The company will spend about $3,000,000 on the contemplated project, and plans a line to Lewistown, in Central Montana, and the construction of lines westward across the Rocky Mountain range to the cities of Kalispell, Whitefield, Columbia Falls, and Missoula.

Cheyenne, Wyo.—In the matter of the briefs supporting petitions for natural gas franchises to serve Eastern Wyoming towns and cities with fuel, the Wyoming public service commission reports that only North Central Gas Company and Frank England of Douglas, representing his client, Criterion Oil Company, filed such. It has been anticipated that Nebraska Public Service Corporation would provide a brief also, inasmuch as it had asked for the franchise requested by the other two mentioned. Nebraska Public Service Corporation, however, failed to do this. North Central Gas Company is affiliated with New York Oil Company which supplies Central Wyoming with its natural gas requirements.

Personal Mention—Men You Know

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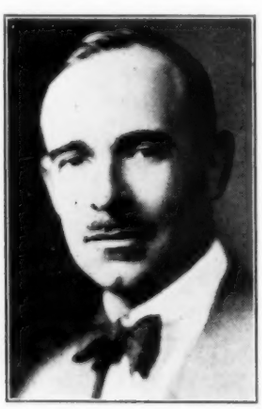
David S. Shelby, former chief scout of Prairie Oil & Gas Company in Tulsa, died at his home in San Antonio, Texas, December 31. For several years he had been stationed in San Antonio as a scout for the company.

He had been with the organization since 1903, working in both the land and scouting departmentts. Previous to this connection he was for 15 years with the Dawes Commission at Muskogee and with the Five Civilized Tribes, which also has headquarters at Muskogee.

Surviving him are a sister, Mrs. Preston C. West of Tulsa; a son, Edward Ellis Shelby, a cadet in the United States Naval Academy; a daughter, Miss Martha Shelby of San Antonio, and another daughter, Mrs. Marx, of Cincinnati.

J. Elmer Thomas, petroleum analyst of Fenner and Beane, Fort Worth, Texas, sailed from New York for Germany, January 21, to continue his work abroad for that company. Mr. Thomas returned from Europe late in December, following an extensive tour, during which he spent considerable time in the oil fields of Germany.

James A. Talbot has resigned as chairman of the board of directors of Richfield Oil Company of California. He was president of the company for several years before becoming chairman of the board.



W. C. McDuffie
Richfield Receiver

W. C. McDuffie will continue to direct operation of Richfield Oil Company as result of the appointment of receiver in equity made by United States District Judge William P. James, recently.

R. D. Montgomery, manager of lands and leases, has been elected a director of Richfield Oil Company of California. R. J. Pagin, formerly an executive of Pacific Western Oil Company, has also been elected a director of the company.

Dan Danciger, representative of the Mid-Continent branch of the Independent Petroleum Association, has been spending some time in California.

William C. Whailey has been appointed general manager of operations for Barnsdall Oil Company of California. He was formerly assistant to the late Fred Fortine, who was vice president and general manager of the company.

Herman Diederichs, professor of experimental engineering and director of the Sibley School of Mechanical Engineering, Cornell University, and William D. Pomeroy, vice president and general manager of Goulds Pumps, Inc., Seneca Falls, New York, recently were presented jointly the Melville medal of the American Society of Mechanical Engineers for an original paper of exceptional merit.

Harry F. Sinclair, chairman of the board of Sinclair Consolidated Oil Corporation, accompanied by other offiicials of that concern, was in Houston, January 30. The others in the party included C. E. Crawley, New York, vice-president of Sinclair Consolidated Oil Corporation, J. R. Manion, Tulsa, president of Sinclair-Texas Pipe Line Company, and Frank Hadley, also of Tulsa, vice-president of Sinclair-Texas Pipe Line Company. A. D. Sloan, Houston, vice-president of Sinclair-Texas Pipe Line Company, met the party in East Texas, and accompanied them to Houston. The group visited the Barbers Hill field and the Sinclair refinery on the Houston ship channel. Their itinerary after leaving Houston was to include Fort Worth and Tulsa.

A. E. Ballin, president of McIntosh and Seymour Corporation for the past 15 years, is retiring from that company and will be succeeded by Robert B. McColl, who has been manager of the Schenectady works of American Locomotive Company. McIntosh and Seymour Corporation are builders of Diesel engines, and was recently purchased by American Locomotive Company.

H. F. (Mike) Ryan who has been with W-K-M Company in Tulsa now is associated with Resistcor Engineering Corporation, Tulsa, in the equipment sales division. The change was effective February 1.

E. G. Lenzner
California Exposition Head

E. G. Lenzner is pushing plans for the next Oil Equipment and Engineering Exposition to be held in Los Angeles in March.

M. G. Kerr of Union Oil Company of California addressed the Petroleum Accountant's Society of Los Angeles, January 22 on "Manual vs. Memorized Accounting."

H. C. Miller of the United States Bureau of Mines, with headquarters at San Francisco, has been spending some time in the Los Angeles district while doing extensive research work.

T. C. Ervin, superintendent of boiler plant of Lucey Manufacturing Corporation, Chattanooga, Tennessee, is spending several weeks studying boiler problems in the Mid-Continent fields.

Cy W. Smith, Mid-Continent representative of The Borden Company, making headquarters in Tulsa, spent the last two weeks in January and the first weeks in February in the Gulf Coast territory, calling on oil companies and supply companies in the Houston territory.

Loy Wilson who has been with Resistcor Engineering Corporation, Tulsa, now is associated with Kelly-Dempsey and Company, Tulsa, pipe line contractors.

George W. Hamm of Kansas City, district manager of the mechanical goods department of B. F. Goodrich Rubber Company, is on a tour of the oil country in company with B. E. Elliott of Tulsa.

Alex W. McCoy, vice-president of E. W. Marland, Inc., sailed January 30 for Italy, where he will spend six weeks in studying geological conditions of that country. He will have headquarters in Rome, while making his study of that country.

E. G. Palmer of Shreveport was elected chairman of the board of directors of Woodley Petroleum Company at the annual stockholders meeting held in Shreveport January 31. Other officers elected are J. R. Parten, Shreveport, president and general manager; R. H. Deas, Shreveport, vice-president; E. W. Moutray, Abeline, Texas, vice-president; J. R. Pope, Shreveport, secretary-treasurer; P. J. Slimer, Shreveport, assistant secretary. Directors elected are: E. G. Palmer, J. R. Parten, R. H. Deas, J. R. Pope, E. W. Moutray, G. John Kooiker, Holland, Michigan; H. W. Davenport, Minden, Louisiana; P. J. Slimer, Eugene Harding, Shreveport; and W. T. Moran, Houston, Texas.

T. A. Dines has been elected president of Utah Oil Refining Company, to succeed the late John C. Howard who was killed in a tragic fall December 18. Mr. Dines is also president of Midwest Refining Company.

Luther Swift of Nacogdoches, Texas, has been appointed deputy supervisor of the oil and gas division of the Texas Railroad Commission in the San Angelo district, with headquarters in the latter city. Swift succeeds John Hoffer, who resigned effective February 1 after having served for a longer period than any other deputy.

Jim O'Donohoe has been appointed drilling and production superintendent for Federated Oil Company, which is drilling several tests in the Joiner and Kilgore fields, East Texas district, with field offices at Henderson. This concern is owned by four independent companies of Wichita Falls.

H. D. Crawford, sales manager, Parkersburg Rig & Reel Company with headquarters at Parkersburg, West Virginia, spent the past week visiting district offices maintained by the company at Houston and Fort Worth, and also selected store sites to serve operators in the East Texas district.

Doc Sexson
Tropical Tool Pusher

Doc Sexson, tool pusher, Tropical Oil Company, in Colombia, was a recent visitor with officials of the Oil Equipment and Engineering Exposition at Los Angeles. He is visiting California fields and inspecting American equipment and methods.

J. F. Justiss has been appointed production superintendent for H. L. Hunt Oil Company and associates, with offices at Henderson, Texas. The Hunt interests are facing the largest drilling program of any single group in the Joiner field, Rusk County, Texas.

H. D. Mackenzie, 50, statistician for Tidal Oil Company, died at his home in Fort Worth, January 29, after a brief illness. He had been attached to the Texas district offices of the company since July, 1923, and prior to that time had been in the services of Carter Oil Company and Gypsy Oil Company. He is survived by his widow, and a sister and a brother. The body was forwarded to Tulsa for funeral services and interment on January 31.

Jack C. Ballagh, secretary of Patterson-Ballagh Corporation, is on a business trip to New York, visiting the Mid-Continent en route, and will return to Los Angeles about February 10.

Frank V. Faulkner, vice president and manager of production, Magnolia Petroleum Company, Dallas, will depart this week for New York to board ship for a two-months' visit at various resorts on the Mediterranean Sea, and will be accompanied by his sister, Miss Anna Faulkner.

E. H. Mueller, who has charge of the production accounting department for Shell Petroleum Corporation, and a staff of about 10 men have been transferred from St. Louis to Dallas district offices of the company to carry on their work. O. D. Story, who has ben attached to the Dallas office a number of years, has been placed in charge of the warehouse accounting department.

Alvin Richards, counsel for Pure Oil Company and president of the Kansas-Oklahoma division of the Mid-Continent Oil & Gas Association, has been elected president of the Tulsa club.

E. W. Marland of Ponca City has been appointed chairman for Oklahoma of the Red Cross drive for drought fund relief.

Annual meeting of the Platte Valley Petroleum Company was held here last week and a board of directors and officers were elected. This company completed the discovery well on the wildcat Greasewood Dome structure, in Weld County, which is good for some 500 barrels per day of light oil from 6647 feet. Considerable inner dissention development over the management of the company's affairs, but matters finally reached an agreeable basis and Menus Johnson of Chicago, a contractor and bank director, was named president. Clyde Mendenhall is first vice-president, W. T. Johnson is second vice-president, Harry I. Richey is secretary-treasurer, and E. E. Calkins is assistant treasurer. Directors are composed of the above and Daniel D. Quinn, Fred D. Tapscott, A. J. Johnson, E. A. Shogren and Walter E. Schwed. The company has announced its plans to develop its own holdings rather than make a joint agreement with a major operator. Five wells will be drilled this year. Bids are to be asked on a 12-mile pipe line from the discovery well to Orchard, on the Union Pacific Railroad, as well as on rotary equipment for drilling and other supplies and materials.

Colonel Charles M. Piper, formerly general sales manager of Johnson Motor Company, Waukegan, Illinois, has been elected vice-president in charge of sales by the board of directors of that company, according to the announcement of Warren Ripple, president. Colonel Piper succeeds E. S. Barber, whose resignation has been accepted.

He was 12 years in the employ of Goodyear Tire and Rubber Company, first in the service department, then as salesman, branch manager and finally as a member of the Akron sales staff. He then transferred to Fisk Tire Company, Inc., where he was general sales manager, until he joined Johnson Motor Company in the same capacity.

News From California Fields

BRAD MILLS, *Staff Representative, Los Angeles, California*

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Approval of Kettleman Hills Pact Far Reaching in Effect

Washington, D. C.—Establishing a precedent that may have a far-reaching influence on all oil production of the future, Secretary of the Interior Wilbur on January 31 announced the approval of an agreement for the unit operation of the North Dome of the Kettleman Hills oil and gas field in California. The agreement, which immediately goes into effect, was submitted by the Kettleman North Dome Association, an organization of land and lease owners of the field, which may be the richest storehouse of wealth ever discovered by man.

"We believe this action will prove an outstanding milestone in oil and gas conservation," Secretary Wilbur declared in explaining that the agreement provides that the Kettleman North Dome Association and Standard Oil Company of California will co-operate with the government to maintain a balanced production to meet market demands without waste. The government and Standard Oil Company are the principal owners and under the agreement the government will secure royalties from production which will range from five to 33⅓ per cent.

"It is conservatively estimated that this area will produce 2,500,000,000 barrels of oil which, considering its high gasoline content, would sell on the present market for more than $4,000,000,000." The secretary said, adding that "If held until it is needed it will serve a greater public purpose and incidentally, will bring a larger return.

Well at Kettleman Hills Is Good for 5250 Barrels

Coalinga, Calif.—Completion of Petroleum Securities Company's Felix 2 with an initial production of 5250 barrels was easily the outstanding field development at Kettleman Hills during the week, the action of the well indicating that the producing limits of the field may extend outside the average theoretical line drawn to define the North Dome. The well was completed at 8100 feet and is flowing from more than 1000 feet of Temblor zone. A string of 8⅝-inch casing was cemented at 6768 feet, but the 5¾-inch perforated section of the oil string froze at 7425 feet and the well is producing under adverse mechanical conditions. Starting with an estimated production of only 1500 barrels, the well soon cleaned up and increased its flow to 5200 barrels. The heavy mud retarded the flow for a time. First production was only 35 gravity, but after the well cleaned itself the oil showed an average gravity of 42.3 degrees. Felix 1 is located about one mile north of the discovery well, but is not dangerously near the edge of the North Dome. Gas production is unusually low, running less than 3000 cubic feet per barrel. This ratio may fluctuate, however, before the well settles down to a more definite course.

The company is drilling at 6000 feet in Felix 3, located a short distance north of Felix 1 and near the edge of the field than either of the two producers on the same tract. Associated Oil Company is drilling at 5000 feet in Whepley 2, which is exactly one-fourth mile east of Petroleum Securities Company's Felix 2. Standard Oil Company has re-drilled to bottom at 6250 feet in No. 47, a direct offset to Felix 3 and also located on Section 35-21-17. This 640 acres of fee land, practically all of which will be productive, has become the center of extensive operations. Standard Oil Company owns one-half of the section, with Petroleum Securities Company and Associated Oil Company each controlling one-fourth. The maximum producing limit of the North Dome may pass just outside the section, although the minimum producing limit does not include all of the tract.

Production of Superior Oil Company's Huffman 1 is being held at 11,000 barrels. Gas production is only 23,000,000 cubic feet.

Seek to Develop Market for Actual California Allowable

Los Angeles.—In an effort to reduce production to 500,000 barrels without working undue hardship on any group of operators, principal crude purchasers are attempting to formulate a plan whereby a ready market will be provided for the output up to the allowable. Actual production dropped to 516,700 barrels during a part of the past week, but the weekly average was considerably higher. Since both Long Beach and Santa Fe Springs were either within their allowable or only slightly over, Playa del Rey was largely responsible for the overage.

The cancellation of purchase contracts by Richfield Oil Company has thrown about 30,000 barrels on the market, nearly all of which must be absorbed if curtailment is to be carried on in its present form. This company has offered to take the oil on a profit sharing basis, the producer to be paid after conversion into marketable products, or after other disposition is made of the crude. The producer will be charged five cents per barrel for handling. Many of the operators who previously sold their crude to Richfield Oil Company are willing to try the new experiment, while others want to sell their oil outright.

The general oil curtailment committee met this week and adopted a resolution in an endeavor to work out the problem of a market for surplus oil. Since production of the state has been reduced to 516,000 barrels, and the producers were in a position within 10 days after notice by the purchasing companies that 500,000 barrels will be purchased, to bring the production to the allowable output, it has been suggested by the committee that the producers of California agree to bring production to the required output within 10 days of the notice that the purchasing companies will purchase a total of 500,000 barrels of curtailed oil at the posted prices. The matter of a market will be referred to the purchasing companies and further plans will be made to bring production down to the allowable.

Since the bulk of the excess has been caused by failure of the Playa del Rey field to meet requirements, two sides of the argument have been advanced. The producing companies claim that the purchasing companies have not voluntarily purchased up to the allowable for the field, while

the purchasing companies have replied with the argument that they stated that the allowable would be purchased only when and after production had been brought down to the correct allotment.

Richfield Oil Company's new co-operative, profit-sharing plan which takes the crude upon advancing 35 cents per barrel for it, is still being discussed widely among operators. The oil is refined, and marketed and the producer is paid on the basis of returns from final disposition, less the handling expenses. As the result of the company's virtual withdrawal as a purchaser, Long Beach production has dropped below the allowable. Many small producers have no ready market for their full allowable, but adjustments are being made which will allow for the disposition of a full quota for each operator at posted prices. The new plan may be the forerunner of a more extensive profit-sharing purchase scheme.

Coal Oil Point Well Ready For Second Production Test

Santa Barbara, Calif.—Bolsa Chica Oil Corporation will make another production test in Augur 191-1, an ocean wildcat off Coal Oil Point and about three miles from Elwood field.

Originally drilled to 4191 feet, this well failed on a production test when water broke in. The latest move was to clean out and run a 6⅝-inch combination liner and cement through perforations. Tests of the water shutoff around the nine-inch shoe at 4020 feet were satisfactory, but the casing seemed defective above the oil sand. This was rolled out and a combination liner run for the impending test.

The Vaqueros zone was found at 2020 feet and about 50 feet of good oil sand cored. The next 50 feet was not so good, while the last 50 feet was very questionable. A plug was set at 4155 feet, but the water probably was not shut off by the operation. If bottom water is indicated, the plug will be set higher to test the zone which was free from water.

The Coal Oil Point structure is still one of the most promising wildcat areas in California and may prove productive when drilled at some other point. The present well was located on what was thought to be the top of the structure, but this may not prove to be true. The entire field will lie outside the mean high tide line and may be the only field completely covered by a major body of water.

Bakersfield, Calif.—Shell Oil Company is drilling ahead at 9419 feet in Williams 1, a wildcat test in the Semitropic district. The well is making very rapid time for such a deep hole and is within striking distance of a new record.

Tanker Shipments from Pacific Coast

1929	[1]Gasoline to Atlantic Seaboard	[1]Total Gasoline	[1]Total all Products	[2]Misc. Package Shipments
December	1,898,772	4,047,003	7,790,795	428,687
1930				
January	1,592,073	3,297,913	7,150,539	471,445
February	1,579,087	3,114,403	6,637,126	458,102
March	1,066,940	2,903,903	6,676,892	460,097
April	1,369,471	3,099,597	7,651,968	389,536
May	1,354,935	2,861,384	6,201,053	372,144
June	2,401,707	4,866,269	8,494,583	359,113
July	2,229,246	3,951,751	7,580,941	381,890
August	1,733,953	3,657,795	6,959,430	256,376
September	1,630,393	3,419,824	6,884,598	331,219
October	1,698,341	3,318,182	6,395,974	321,117
November	1,179,018	2,843,928	6,217,857	324,061
Total	19,733,936	41,381,952	84,641,756	4,553,787[2]

[1]Exclusive of package shipments.
[2]Includes small amount of gasoline.

Playa del Rey Featured By Conflicting Trends

Los Angeles.—Completion of several good wells in the deep zone and steady decline of operations in the shallow sand featured activity in the Playa del Rey field last week, the conflicting trends making it difficult to predict an immediate course for the field. The deep sand along the coast and in the extreme southern part of the field is giving some good account of itself and a reversal of form certainly indicates a slower decline than previously expected. This formation is found at a shallower depth in the southern part of the field than near the discovery well on the north flank. Extension of the producing limits of the field to a point down the coast line makes the larger block held by Union Oil Company and other operators look very attractive for the long pull.

The outstanding completion of the week was Pacific Shore Oil Company's No. 3, located near Fifty-Fourth Place and Speedway. The well was completed at 6080 feet and started flowing at the rate of 3000 barrels. Drilling was stopped in a peculiar shale formation, following cutting of a schist body between 6015 feet and 6050 feet. The well is producing from a greater body of sand and shale than any other completion in this part of the field, with 220 feet of 4¾-inch perforated liner landed on bottom. The change from shale to schist and a subsequent change back to shale was unusual, and the fact that the well is showing only a small cut is significant. Other completions near this well were tested from considerably less sand.

A. T. Jergins' Troxel 1, which was completed a week

California Stocks of Crude and Refined Oils

1930:	Heavy Crude and Fuel	Refinable Crude	Gasoline	Naphtha Distillates	All Other Stocks	Total
Jan. 31	113,073,237	42,068,114	17,825,998	2,566,998	10,812,196	186,346,543
Feb. 28	113,687,953	44,341,155	18,747,359	2,494,887	10,427,369	189,698,723
March 31	113,123,700	44,810,122	18,202,025	3,026,623	9,807,908	188,970,378
April 30	112,198,691	44,475,703	18,038,274	3,184,353	9,295,738	187,192,759
May 31	112,777,466	43,749,958	18,635,346	3,022,565	9,546,205	187,731,534
Jun 30	113,036,486	41,863,482	17,103,762	2,992,918	9,345,604	184,342,252
July 31	112,250,064	41,831,069	16,443,388	2,875,767	8,855,657	182,255,945
August 31	111,431,519	41,702,823	16,259,683	2,684,304	9,145,461	181,223,790
September 30	110,959,288	42,207,293	15,906,323	2,492,095	8,868,955	180,433,952
Oct. 31	109,299,903	42,660,721	16,174,546	2,380,615	8,984,700	179,500,485
November 30	109,410,308	42,691,166	16,755,344	2,598,914	8,855,038	180,310,770
December 31	109,419,521	42,744,491	17,241,334	2,937,081	8,690,714	181,033,141

ago at 5860 feet with an initial production of 2150 barrels, has reduced its flow somewhat but is still one of the best producers in the field. A string of 6⅝-inch casing was cemented at 5620 feet and 2½-inch tubing was run for the test. This well is located near Fifty-First and Speedway. The oil showed the minimum cut and the action of this well may be responsible for several more deep tests in the district.

Union Oil Company has made a location for Vidor 1, which is southeast of the present producing limits of the field. This company also holds a lease on the Del Rey Land Company tract and probably will eventually become the largest producer in the field. Estimates of the portion of the field controlled by this company runs as high as 50 per cent of the total.

Production has been hovering around 36,000 barrels from 150 wells. The shallow zone was the most consistent gainer for a time, but the deep zone has been making the better showing during the past few weeks. Active drilling wells total 40, a decline of nearly 100 from the peak field work of early fall.

Possibility of extensions and the limited development in the deep zone place the field in a very interesting, even if doubtful, class. The shallow zone will continue to decline unless more activity is started on the larger tracts. The deep sand may take the opposite course if operators concentrate on it. With one placed against the other, production will not show the decline expected before the more favorable developments in the deeper formation.

Drilling Test Deeper At Huntington Beach

Huntington Beach, Calif.—Huntington Beach operators are still excited over the possibility of deeper production, refusing to accept the first production test in Superior Oil Company's Fee 1 as final.

This well, which failed on a test of a formation just below 7000 feet, has been deepened to 7491 feet and will again be tested. A combination string of 4¾-inch was landed on bottom and cemented through perforations at 7280 feet.

This well is the most important deep test now drilling in the Los Angeles basin and the outcome of the production test will largely determine the amount of field work done this year. Many operators have found it difficult to produce their wells under present conditions and would welcome the opportunity of deepening to increase production. At this time the field is in line for another wave of drilling, but only a satisfactory deep completion will be sufficient to start such activity.

W. E. McCaslin cemented a string of 4¼-inch casing at 6880 feet in No. 17, another deep test in the field, after drilling to 7112 feet. This well probably will be deepened to include the zone now being tested by Superior Oil Company.

Huntington Beach is typically a townlot district and has been the center of drilling on more than one previous occasion.

Casper, Wyo.—Commander A. A. Baker, CEC, inspector of the United States Naval petroleum and oil shale reserves in Colorado, Wyoming, and Utah, has recently stated that providing an appropriation is allowed for the work, the wells on Teapot Dome reserve will be reconditioned, and gas and water leaks shut off.

North Belridge District Active Despite Reverses

Bakersfield, Calif.—Despite recent unfavorable developments in the deep zone, the North Belridge district still ranks as potentially a great producer and will remain an active area throughout the year unless present drilling discloses a much smaller structure than the discovery well indicated. Fifteen wells are being drilled in and near the North Belridge field, with six of the major companies being represented in the race to define the producing limits of the Temblor zone. Richfield Oil Company has suspended operations in Belridge 1, which was tested unsuccessfully above 6000 feet and failed on subsequent deepening to find a satisfactory unbroken body of oil sand. This well was drilled to 6639 feet and plugged back, with 6⅝-inch casing at 6255 feet. Ohio Oil Company's Bloemer 1, Section 36-27-20, is coring brown shale at 5240 feet and seems to be located low on structure. The discovery well, Belridge Oil Company's Fee 15, has increased its production to 4800 barrels of clean oil. This well was completed with an initial production of 2800 barrels and has steadily increased its output for several months.

California Gas Law Goes Before U. S. Supreme Court

Los Angeles.—The California gas conservation law will be tested before the United States Supreme Court, a group of operators in the Santa Fe Springs field having succeeded in getting leave to appeal the original case to the highest court in the country. Division Two District Court of Appeals at Los Angeles granted the leave and issued a staying order cancelling an order and modified order issued some time ago by the Supreme Court. The Superior Court at Los Angeles last year granted a preliminary injunction against all operators at Santa Fe Springs, prohibiting them from wasting gas. Later a group of operators obtained an order from the District Court of Appeals which stayed the order of the lower court until the higher court could investigate the merits of the injunction. Later the original injunction became effective when the higher court ruled it equitable. A leave for a still higher appeal is granted on the appeal by the Wilshire Group of Companies at Santa Fe Springs.

Weed Patch Test Fails To Get Water Shut-Off

Bakersfield, Calif.—Mohawk Oil Company failed to obtain a water shutoff in Wharton 1, a test in the new Weed Patch field, and has recemented the 8⅝-inch casing at 5645 feet. The well was drilled to 5966 feet, following coring of 300 feet of formation which showed no water. Failure of the test has been traced to the shutoff and there has been no evidence that the zone which produced satisfactorily in the discovery well contains water in this well. Shell Oil Company has passed 7150 feet in Porter-Day 1, discovery well which was killed for deepening after flowing at an 1100-barrel rate for a week. Apparently this test did not pick up the Temblor zone at 6800 feet, as reported unofficially. The Weed Patch field holds much promise as a producer of medium gravity oil which contains a good percentage of gasoline. Located out in the bed of the San Joaquin valley, it is in line with both the Fruitvale and Union Avenue structures.

Oklahoma--Kansas Field Notes

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

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Large Gas Well Completed In Wewoka-Holdenville Area

Tulsa.—Jarvis and Holm's Street 1 SW NW NW, Section 16-7n-8e, in the South Wewoka-Holdenville area, was completed as a 75,000,000-foot gasser in sand at 2902 to 2907 feet. Total depth is 2923 feet in sand. Droppleman, Lack et al's Lack 1-A SW SE NW, Section 30-8n-8e, which came in last week making a large amount of low gravity oil, is now producing about 4000 barrels of fluid only 200 of which is oil; total depth is 2175 feet in a stray sand.

Deep Rock Oil Corporation completed one well and has three others due for completion within a short time. The company's Douglas 3 (50-A) SE SE NW, Section 30-8n-8e, in the Townsite pool, gauged 81,000,000 gas at 1000 pounds pressure. Sand was topped at 3002 feet and six-inch casing set at 2970 feet. The plug was drilled only to 2990 feet before the gas broke through. Same company's Douglas 3 (60-A) NE NE SW of the same section, had top of the Mayes at 3710 feet, Hunton at 3840 feet, Woodford at 3795 feet, and Sylvan at 3995 feet. It was drilling at 4009 feet in Sylvan. No show was encountered in the Hunton.

Same company's Douglas 4 (50-A) SE SE NW, Section 30-8n-8e, encountered oil in the Viola at 3864 to 3874 feet and was drilling at 3904 feet, four feet below the top of the Simpson with oil showing. On the same lease, Douglas 5, NW NW SE, cored sand showing oil at 3130 to 3166 feet. The hole is being reamed. Burke-Greis Oil Company set six-inch casing on top of the Booch sand at 2904 feet and will test. Mid-Kansas Oil and Gas Company's Davis 4 NW SE NW, Section 30-8n-8e, topped the Mayes at 3470 feet. It is reported running structurally high. Droppleman et al's Lack 1 SW SE NW, Section 30-8n-8e, south offset to Mid-Kansas, Davis 4, encountered sand at 3095 to 3144 feet and produced 1950 barrels during the first 24 hours.

Nine Oklahoma City Wells Show 275,000-Barrel Total

Oklahoma City.—Nine wells were completed in the Oklahoma City pool for a total 24-hour initial production in excess of 275,000 barrels and two locations were announced. Phillips Petroleum Company's Black 1 in the NE NW of Section 10-11n-3w, the largest completion, produced 8896 barrels in four hours from 175 feet of Wilcox sand topped at 6325 feet. The well was being flowed through a four-inch choke under a back pressure of 250 pounds. Gas was estimated at 29,500,000 cubic feet. Anderson-Prichard and Phillips Petroleum Company's Rayhill 1 SW NW NE of Section 10-11n-3w, located the Wilcox sand from 6316 to 6485 feet. At a total depth of 6500 feet it produced 7473 barrels in four hours.

Phillips Petroleum Company's Ashcan 1, in the NE corner of Section 3-11n-3w produced 8583 barrels in four hours from 180 feet of Wilcox sand topped at 6277 feet; total depth is 6467 feet. Century Petroleum Company's McConnell 1, in the NW SW NW of Section 2-11n-3w topped the Wilcox sand at 6185 feet and produced 8856 barrels in four hours along with 40,000,000 cubic feet of gas. Total depth was at 6341 feet. Anderson-Prichard's Westfall 1, SE NW NE of Section 3-11n-3w had the Wilcox from 6288 feet to 6424 feet where it produced 6400 barrels in four hours; total depth is 6434 feet.

T. B. Slick Estate's Foote 3, NE NW SE SW of Section 2-11n-3w set six-inch casing at 6225 feet, five feet below the top of the Wilcox. The well produced only 472 barrels in four hours. A four-inch liner of 424 feet was set 120 feet off bottom making the well one of the few in which liners have been set in the Oklahoma City pool. Total depth is 6566 feet. Scott and Company's Ashley 1, NE NE NW of Section 14-11-3w which had its first production on January 6, 1931, has been plugged back from 6582 to 6532 feet. At the former depth the well produced about 3500 barrels of fluid cutting 16 to 40 per cent. It was believed that the water was coming from behind the pipe. During the interval of plugging back the company has treated and pumped about 6000 barrels of oil to the Peacock and Peveto refinery. Dengail Oil Company's Hyle 1, CEL of NE NW of Section 10-11n-3w, produced 5200 barrels in two hours, 25 minutes, from 151 feet of Simpson formation topped at 6347 feet. Total depth is 6498 feet.

During the week ending January 26 daily average runs for the pool were 83,275 barrels and for the same period the daily average production was 70,560 barrels. As of January 31, 706 producing wells had been completed and 671 were shut in. Twenty-seven sand wells produced 32,334 barrels and eight lime wells 2244 barrels. Daily average pipe line runs for the individual purchasers for the week ending January 26 were as follows:

	Barrels
Anderson-Prichard Oil Corporation	23
Capitol Oil Company	750
Champlin Refining Company	2,157
Empire Oil & Refining Company	18,898
Magnolia Petroleum Company	8,798
Oklahoma	17,209
Prairie Oil and Gas Company	508
Shell Petroleum Corporation	4,773
Sinclair Oil & Gas Company	8,544
Stanolind Oil & Gas Company	17,251
Sunray Oil Company	430
Tidal Oil Company	3,531
Wilcox Oil & Gas Company	397
Total	83,275

T. B. Slick Estate announced location for its Egbert 1, approximately SW SE SE SE of Section 34-12n-3w in Mead addition. The lease includes lots 11, 12, 13 and 14 and the well is located on lot 12, 293 feet north of the south line and 510 feet west of the east line of the SE quarter of the section. Phillips Petroleum Company and Shell Petroleum Corporation announced location for Egermyer 1, in the SW corner of 23-11n-3w, a 330-foot location. This test will be located one-half mile SW of the Shell Petroleum Corporation's Egermyer 1, which is the nearest producing well.

Phillips Petroleum Company's Baultinghouse 1, in the NE NE NW of Section 10-11n-3w, on the SW edge of the

field, had the base of the Pennsylvanian at 6323 feet and top of the Wilcox three feet lower. Total depth is 6342 feet. In the same section Johnson and Dabney were preparing to run casing in their Foote 1, in the NW SE NE. Top of the Wilcox was encountered at 6295 feet and the present total depth is 6371 feet.

Suits for receivership of Don Leon Oil Company and Morgan Petroleum Company which were to be heard in district court on January 30 were postponed indefinitely. A citation against Sinclair Oil and Gas Company for overproduction was also postponed indefinitely. Hearings before the corporation commission in regard to the operator's petition to increase the allowable percentage of production in the Oklahoma City pool which convened on Monday, January 26, and consumed the early part of the week were extended to reconvene Tuesday, February 3. Operators are asking the commission to increase allowable production from 1½ per cent to 10 per cent of estimated daily potential. Final reports on the estimated potential of the pool are not as yet available but it is understood to be approximately 6,000,000 barrels on the list already gauged.

Drumright Chapter, A. P. I. Has Interesting Meeting

Drumright. — The Drumright chapter A. P. I. division of production, had a real treat at its January meeting in the form of two illustrated talks, one on the manufacture of seamless casing and one on the right and wrong methods of making concrete. J. I. Crockett, Jones and Laughlin Steel Corporation, discussed the care and use of casing, emphasizing the value of threads and pointed out the efforts made by manufacturers in keeping ahead of ever-increasing demands due to deeper drilling. His talk was illustrated by several reels of motion pictures by which the audience was conducted on a tour of inspection from the iron and coal mines and the limestone quarrys through Jones-Laughlin's plants showing each step in the manufacture of seamless casing and the methods of handling various by-products.

W. H. McPheeters, field agricultural engineer for Portland Cement Association, gave perhaps one of the most practical talks that the chapter has heard. Seven fundamental rules requisite to making good concrete were discussed and Mr. McPheeters pointed out specifically that the strength of concrete depends largely upon the water-cement ratio. It has been estimated that one pint of unnecessary water wastes two pounds of cement, and several interesting curves were shown to illustrate the variation of strength in proportion to the amount of water used. With the usual mix 4½ gallons of water per sack of cement will give a crushing strength of 4000 pounds per square inch while 7½ gallons of water per sack of cement will give only 1900 pounds per square inch during the same unit of time and under like conditions of care. Mr. McPheeters also gave some simple methods by which the materials necessary to concrete construction can be carefully estimated before the job is started thereby eliminating guess work which has been responsible for wastage of large amounts of material.

The next meeting will be held on Tuesday, February 17 in the Chapter room at the Community Hall in Drumright.

Tulsa.—Strapp and King's Townsite 1, SW SW NW Section 8-9n-5e, in the Earlsboro Townsite pool, shot with 10 quarts at 4337 feet in the Wilcox sand and had 1000 feet of oil in the hole with about one bailer of water per hour. A second shot of 20 quarts raised the fluid level to 2000 feet from the bottom and there was no trace of water. It is being cleaned out preparatory to testing.

Eliminate Duplication of Names Plan of Geologists

Norman, Okla.—Plans for eliminating much of the confusion and duplication of names of geologic formations were started at a meeting last week at Toronto, Canada, of committees from five major geological organizations of the United States and Canada, according to Dr. Chas. N. Gould, director of the Oklahoma Geological Survey, who was general chairman of the committee. Fifteen leading geologists, three from each of the major groups, make up the general committee which is known as the Committee on Geologic Nomenclature.

"The botanists and the zoologists are far ahead of the geologists in the matter of scientific names," Dr. Gould said. "Both these societies have an international committee on names to which is referred disputed points, but in geology no such committee has ever been provided for, and every man has been a law unto himself. The members of this joint committee expect to work out rules for the naming of formations and submit them to the geologists of North America."

The next meeting of the committee will be held in Washington, D. C., probably the last week in February, and quite possibly another meeting will be held at San Antonio, Texas, the last of March, at the time of the annual meeting of the American Association of Petroleum Geologists.

In discussing the needs for a uniform system of naming formations Dr. Gould pointed out that at the present time a single formation may have different names in different states, and often in different parts of the same state. In other instances the same name has been used for more than one formation, as in the case of the Wilcox sand used for one of the deep oil producing sands in Oklahoma and a much younger formation in Texas. One of the purposes of the committee on nomenclature, which was started last February by the American Association of State Geologists, is to try to devise a plan for using a uniform name for a particular formation wherever it is found, and not use the same name for more than one formation.

Carr City Well Shows Water, Deepened and Plugged Back

Tulsa.—Prairie Oil & Gas Company cored dry sand at 2560 to 2575 feet in its Fixico 4, NE SW NW Section 2-8n-5e, in the Carr City pool. In the next section west, W. B. Pine's Tiger 1, SE NW SW Section 3-8n-5e, set five-inch casing at 4196 feet and swabbed nothing but water after drilling the plug. Deepened to 4234 feet it had 2500 feet of water in the hole. It was then plugged back to 4196 feet and a swabbing test revealed nothing but water. Magnolia Petroleum Company's Coker 1, NW SW NE Section 35-9n-5e, just north of the Carr City pool, had top of the Wooford at 4278 feet, Hunton at 4420 feet, Sylvan shale at 4465 feet, and was drilling below 4560 feet with nothing showing.

Tulsa.—Empire Oil & Refining Company's Williamson 1, SW SW NW Section 7-4n-8e, in the Allen district, topped the sand at 1932 feet and drilled to 1955 feet where it swabbed 98 barrels of oil in 15 hours. It will be put on the pump. Sunray Oil Company's Ritchie 10, SE NE NE Section 12-4n-7e, had a hole full of water in the sand at 1920 to 1932 feet and a show of oil and gas in sand at 1940 to 1946 feet. Casing was set at 1940 feet.

Ritz Pool Area Most Active In Kansas During Past Week

Wichita, Kansas.—The vicinity around the Ritz pool in McPherson County is the most active area in the state with 29 drilling wells, four rigs, and five locations.

Carey and Shell Petroleum Corporation's Smith 1 NE SW, Section 15-19s-2w, in the northwest part of the pool directly west of the gas area, came in making an estimated 4,000,000 cubic feet of gas and spraying about 20 barrels of oil per hour from Chat topped at 2968 feet and penetrated two feet.

Approximately four miles northeast of production, Henderson and Holden's Summerfield 1 NE SW, Section 23-19s-1w, had a small show of oil in the chat and is being deepened to the Viola lime. It is reported to be running favorably in regard to structural position as compared with Mid-Kansas Oil and Gas Company's Garrett 1 discovery well in Section 30 of the same township. The Summerfield swabbed two barrels of water and one barrel of oil from the chat at 2935 to 2941 feet, and is drilling below 2950 in sandy lime.

Shell Petroleum Corporation et al's Kaegle 1 NEc, Section 20-19s-1w, about two miles northeast of the Garrett 1, had a show of gas two feet in the chat at 2914 feet; 6⅝-inch casing was set at 2910 feet preparatory to testing the sand. Youker et al's Gratton 1 SE SW SW, Section 24-19s-2w, was estimated at 9,000,000 cubic feet of gas and was spraying oil. Total depth is 2952 feet in chat.

Cosby, Dietrich, and Phillips Petroleum Company's Cone 1 NWc NE, Section 31-22s-3w, approximately 10 miles southwest of the Voshell pool, set five-inch casing at 3262 feet, 13 feet above the top of a pay sand. The hole filled 1200 feet in eight hours at 3282 feet and one foot of additional drilling raised the fluid level 1000 feet higher. At last report the well was drilling below 3290 feet with no further increase in oil. Gravity is 31 degrees and 64 degrees F.

Tulsa.—Mid-Kansas Oil & Gas Company's Messer 1, discovery well in Section 32-13n-3w, southwest of Edmond, was opened Monday, January 26, and produced 390 barrels in 7½ hours. This test created considerable excitement in September, 1930, when Wilcox sand was encountered at 6697 feet for an initial production of 441 barrels by agitation. It has been closed in for the past 90 days. It is located approximately 12 miles northwest of the Oklahoma City pool.

Kansas Drilling Operations Show Increase During Week

Wichita, Kansas.—During the week ending January 31, 1931, there were 56 locations and rigs, 105 drilling wells, 31 rigs shut down, and eight completions. This is an increase of four rigs and locations, and eight drilling wells over the week before. Daily production for the week ending January 31, averaged 104,000 barrels from the entire state.

Announcement that Sinclair Oil and Gas Company would increase runs from its own properties in the Voshell pool to 4000 barrels daily on February 1, may spell doom for proration in that pool. The company has been taking 2500 barrels from its properties and allowable production for the pool was based on that figure, there being an agreement that any operator would be permitted to take a percentage of potential based on the highest amount of oil run by any of the producers. Up to the present announcement by Sinclair Oil and Gas Company, 2500 barrels was the highest outlet from any individual in the pool and allowable was set at 18.91 per cent.

Oklahoma Legislature Has Four Committees on Oil

Oklahoma City.—Four sub-committees were named January 29 by the chairman of the oil and gas committee of the Oklahoma house of representatives to study different phases of proration and other subjects pertaining to oil. One sub-committee will make inquiries into methods and motives of those seeking to influence legislation on the oil and gas industry. Proration in the Oklahoma City field will be taken up by another committee. Areas outside of Oklahoma City, especially in the Seminole pool, will be before a third sub-committee. There will be a general study of proration by a fourth sub-committee.

Tulsa.—Dr. W. T. Thom, Jr., of Princeton University, was guest speaker of the Tulsa Geological Society at its regular weekly luncheon held Thursday, January 29, in the Tulsa building. Dr. Thom outlined briefly some of the accomplishments of the past summer and objectives for future work in the advancement of geology through co-operative research and presented a group of pictures showing features of the Yellowstone Park area which has been selected for study. R. S. Knappen, president of the society, read an announcement in regard to the Red Cross drive which starts February 1. Seventy-five members and guests were present.

Tulsa.—Mid-Continent Petroleum Corporation's Harjo 1, SW NE NW Section 6-5n-6e, near Seminole, cored a small show of oil in green sandy shale at 2111 to 2117 feet and at 2207 to 2217 feet. The interval between these two beds was carefully cored but no showing was found. Benedum and Trees' Burk 1, SWc Section 28-5n-5e, set six-inch casing at 1710 feet and encountered sand at 1715 to 1720 feet which yielded a show estimated at 15 barrels. Atlantic Oil Producing Company had a hole full of water at 3529 feet in its Fixico 1, NW NW SE Section 15-11n-8e, approximately three miles northeast of the Cromwell pool. At 3526 feet, operators swabbed 28 barrels of oil and 20 barrels of water.

Tulsa.—Carter Oil Company set five-inch casing at 3126 feet in its Tewee 7, NE NW NE Section 14-7n-6e, in the Little River pool, and encountered from 3140 to the total depth of 3145 feet. It produced 40 barrels the first hour and 659 barrels the first 24 hours along with an estimated 18,000,000 gas. Mid-Continent Petroleum Corporation's Bruner 6, SW SE SE Section 11-7n-6e, was completed for an initial production of 360 barrels at a total depth of 3133 feet.

Weiser, Idaho.—Another blowout is reported by Mountain States Oil & Gas Company's gasser near here which blew in early in January. The first gas showing was reported at 1900 feet and the second at 1995 feet. The well is said to have come in without warning, and to have been put under control six hours later. The first gas sand was cased off. The Payette well of this company ran wild on January 24 and finally bridged itself.

New Mexico and Rocky Mountain Area

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Hobbs Potential of 1,232,535 Barrels Is new Record Level

Hobbs, New Mexico.—Revised potential production gauges on all wells in the Hobbs field taken for the February 1-15 proration period revealed a new peak total of 1,232,535 barrels from 141 producers, or an average unit potential of 1,116,820 barrels daily. A majority of the wells were gauged through three-inch tubing, then wide open flow capacity estimated by the curve method. This plan of arriving at potentials is optional with well owners, and is being given its first trial in the field with this new period. The principal advantage is to conserve rock pressure on the porous lime oil and gas horizon, and lessen the danger of water encroachment that has appeared in only one well, located on the edge of the structure.

Production allowance for Hobbs field during the first half of February has been announced by Umpire C. G. Staley as being 31,353 barrels daily, as compared to 31,430 barrels daily during the previous period. Plans of crude purchasers to boost the production allowance of the field to about 35,000 barrels daily failed to materialize, although an effort to provide the increase was made middle January. This new schedule allows wells in the Hobbs field to produce an average daily quota of 222.36 barrels each, or virtually the same as that given the Yates field, Texas, operators, who are averaging 223.75 barrels daily per well.

Amerada Petroleum Corporation scored its first small producer in the Hobbs field after completing 11 wells on as many separate 40-acre units. This company's State 1-C, NEc Section 36-18s-37e, earned a potential of only 130 barrels daily at a total depth of 4236 feet, with three-inch tubing swinging at 4210 feet, but will be worked over and re-gauged later. It produced 32 barrels oil during first half hour on proration test, then made only five barrels oil during the next hour. It is located on the west side of the field. Midwest Refining Company's State 11, NEc SW Section 5-19s-38e, earned a daily potential of 8230 barrels oil and 5,000,000 feet gas at 4030-4193 feet, while the same company's State 11, NEc NW Section 9-19s-38e, is ready to complete in lime at 4090-4175 feet.

Standard tools were installed at 3795 feet by Atlantic Oil Producing Company late last week to complete O. L. Coleman 1, SWc NE NW Section 17-21s-36e, an outpost test on the north end of the Eunice field. This test cased off about 40,000,000 cubic feet of gas when seven-inch pipe was cemented at 3726 feet. On the south end of the field a depth of 1678 feet has been reached by The California Company's State-Meredith 1. The latter is drilling in 12-inch hole with rotary, and at 1500 feet was found to be only one degree off vertical. Top of anhydrite was logged at 1340 feet and first salt at 1435 feet, with a surface elevation of 3634 feet. Continental Oil Company and The California Company's A. E. Meyer 2 has been equipped with gas lift, using natural gas from the same interests' Lockhart 1-A, and flowed 107 barrels fluid, seven per cent b.s., during 21-hour period ending 7 a. m. February 2. This well was drilled to 3992 feet and shot with 100 quarts at 3910-80 feet, but would not flow. Lockhart 1-A killed a flow of 12,000,000 cubic feet of gas with 30 tons of mud at 3827 feet, but the gas has since appeared inside the seven-inch casing, which was cemented at 3825 feet. This test began coring at 3890 feet, and was coring porous oil saturated lime at 3957 feet early this week.

Wyoming Legislature Has Leasing Bill Before It

Cheyenne, Wyo.—A bill calling for several changes in the leasing laws governing state-owned lands is recommended by the house revenue committee in the state legislature assembled here. The measure provides that rental for the first year would be 50 cents per acre, for the second year 75 cents per acre, and $1 per year thereafter until oil was struck. If and when oil is discovered, the lessee would have the preference in continuing the lease. Bill provided further for a graduated royalty; if a well is completed having a daily capacity of 500 barrels or less the state royalty would be 12½ per cent; between 500 and 1200 barrels the royalty would be 16 2/3 per cent, and more than 1200 barrels the royalty would be 20 per cent.

The state department of geology is condemning the measure on the ground that the new prospecting fees would make it prohibitive for any but major operators to prospect for oil and gas; this, the department asserts, would result in fewer leases and the decline of revenues.

Santa Fe, N. M.—The State Bureau of Mines and the State School of Geology have retained Dean E. Winchester, well known Denver geologist, to make a report on the mineral, oil and gas resources of this state. He is now working on the preliminary draft of a geological map which will show the various oil and gas fields, pipe lines, refineries and location of wells throughout the state. It is expected that the report will be completed about next July and ready for printing and distribution by early fall. The valuable feature of the new report will be a log of all wells drilled in New Mexico to date.

Billings, Mont.—A 7000-foot deep test in the heart of the Lake Basin field, northwest of here, will be drilled by Delmar Oil Company (subsidiary of Indian Territory Illuminating Oil Company) according to an announcement made by officials last week. Objective horizon will be the Wilcox sand. The field is producing some 50 barrels per day at present, from the Dakota series, around 3900 feet. It is one of the oldest producing districts in Montana. Gas wells in the field produce from the Telegraph Creek and Eagle sandstones, around 1500 feet, and supply Crystal Carbon Company's plant at Molt. Daily capacity is about 4,000,000 cubic feet.

Great Falls, Mont.—Ohio Oil Company has entirely stoped buying crude oil produced in the Kevin-Sunburst field and instead of a 50 per cent proration the field is now on a 100 per cent proration so far as Ohio Oil Company is concerned. International and Maple Leaf refineries in Coutts, the Big West and Toole County refineries, however, are taking about 100 per cent of the oil for which they have contracted, so that some of the leases in Kevin-Sunburst are shut down entirely while others are working to full capacity. This is causing considerable feeling in the district. It is believed that the condition will be temporary.

North and West Texas Field Notes

H. H. KING, *Staff Representative, Fort Worth, Texas*

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Market Relief Provided for Seven Burkett Pool Wells

Coleman, Texas.—Pipe line facilities and market relief for seven wells in the Burkett pool, Coleman County, is to be provided by The Texas Company, which has agreed to take and purchase 20 barrels daily per well. The Texas Pipe Line Company is starting work on a combination three- and four-inch line from the heart of the field to tie into its system in Brown County, a distance of about seven miles.

Potential production of the Burkett field is estimated at 2500 barrels. About 15 wells will be on production within a few months, as necessary offsets must be drilled by lease owners when a market outlet is provided. Arcadia Refining Company, T. E. Brown and V. E. Ekholm discovered the field September 3 with a 365-barrel flowing well at 1576-1576½ feet. These operators erected a 55,000-barrel storage tank on the lease, and have since accumulated more than 20,000 barrels of oil. Indications are that the Burkett field has sufficient proven acreage to afford a large drilling campaign.

Big Lake Field's Deep Test Continues Production Gains

San Angelo, Texas.—Maintaining an average flow of 7892 barrels of high gravity oil and about 65,000,000 cubic feet of gas daily during the week ending February 2, Group One Oil Corporation's University 4-B, Big Lake field, continues to register an almost uninterrupted increase in production from the 8587-foot level. This well was brought in on the night of January 14 and up to 7 a. m. February 2 had produced 125,898 barrels of oil even though an average back pressure of 600 pounds has been applied on the seven-inch casing. Production increased when the back pressure was boosted to 775 pounds for a 48-hour period during the past week. Tubing is enroute from an Eastern mill to be installed in this unusual producer to conserve the gas output, and also restrict the flow of oil.

Production from the seven record depth wells in the Big Lake field reached a total of 21,719 barrels during the 24-hour period ending 7 a. m. February 2, while the 247 producers in the 3000 and 2500-foot horizons accounted for an additional sum of 10,608 barrels during the same period. These deep wells vary in depth from 8489 to 8923 feet, and the oil ranges from 50.9 to 64.6 gravity. Big Lake Oil Company's five deep wells are contributing about 8800 barrels of the high gravity production, and the three largest have been equipped with tubing. Mixing of the deep production with that of the shallow wells affords a common oil stream of 46-48 gravity from the field, but the two companies are forced to sell on a basis of Mid-Continent postings, and do not get the benefit of added gravity of the oil.

A steady shrinkage in drilling activity throughout the West Texas district has followed in the wake of a threatened wide-open drilling campaign in East Texas. The demand for the crude is also tapering off as result of the recent cuts made in posted prices of Panhandle, North Texas and Gulf Coast crudes, as the latter are on a price level that displaces West Texas crudes in a competitive market.

Reduction of nominations of crude purchasers in the Crane-Upton district for the February proration period reflects this condition. The latter area has been granted a production quota of 18,484 barrels daily, as compared to 23,129 barrels daily during January, while the allowance was 29,000 barrels in December.

In Andrews County, Deep Rock Oil Company-Atlantic Oil Producing Company and The California Company's Kuykendall 1, which is several miles southwest of the three small producers in the pool, began showing oil at 4240 feet and at 4285 feet filled 600 feet oil in hole. Bailing tests failed to lower the fluid level. Indications are that the best producer of the group may be scored from this outpost test. No market has been made available for the output of this pool, which was established in December, 1929, although Atlantic Pipe Line Company's trunk line extension to Hobbs is located only a short distance from the wells.

Start Work on 4½ Mile Line Outlet for Pilot Point Pool

Fort Worth, Texas.—Thurber Pipe Line Company, pipe line subsidiary of Texas Pacific Coal & Oil Company, is starting work on a 4½-mile four-inch line to extend from the Pilot Point pool, located in southern Cooke County, to a tank car rack near Pilot Point, and will provide the first market outlet for the area, which has a potential of about 500 barrels daily. This oil tests 24-25 gravity, and will command a price of 53 cents per barrel at the well. Texas Pacific Coal & Oil Company will utilize same at its Fort Worth refinery.

A revival of interest in the Pilot Point area was scored recently when Stabiforth & Danciger Oil & Refining Company's Jacobs 1 flowed seven barrels oil per hour, partly pinched, from broken sand and lime at 1502-23 feet, with a surface elevation of 631 feet.

Amarillo, Texas.—Suspension of operations on Humble Pipe Line Company's 10-inch trunk line that extends from the Texas Panhandle to the Ranger district, where connections are made with other units of the company's system became effective February 3. Humble Oil and Refining Company is producing, purchasing and trading about 7000 barrels daily in the Panhandle, and plans to continue such takings until further notice, with all oil going into field storage during the pipe line shutdown period. The company has approximately 1,000,000 barrels of crude in storage in the district, and about 500,000 barrels idle tankage. Resumption of operations on the trunk line will probably not take place until early in April.

Electra, Texas.—Waggoner Pipe Line Company has been organized with a capital stock of $25,000 to take over and operate the extensive crude oil pipe line system being operated by the Waggoner Refining Company in Wilbarger and Wichita Counties. Both concerns are owned by W. T. Waggoner, Fort Worth capitalist, and his two sons, E. P. and Guy L. Waggoner.

East Central Texas Field Notes

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Humble Confronted With Major Drilling Program at Kilgore

Tyler, Texas.—Humble Oil & Refining Company is confronted with a drilling program on the discovery leasehold of the Kilgore field, located in northwest Rusk County, that may rival its ambitious program in the Corsicana-Powell field in 1923 as result of numerous offsets bobbing up on all sides of the block. This company has moved in on four direct offsets since taking possession of the properties of Ed. W. Bateman et al and the producer on the Crim farm, and is also preparing to kill the discovery well to set liner and tubing before restoring it to production. In the meantime Humble Pipe Line Company is at work on a 13-mile, 10-inch line from the field to a point to the southeast of Longview, where a station and tank farm is being erected on the company's Van 10-inch carrier. This station site is on the Browder-Allen tract, northeast part of the Avey R. Johnson Survey, Gregg County.

Two tests drilling on the side edge of the Kilgore field discovery lease had reached the Pecan chalk horizon early this week, and probably will be at the final casing point before the end of the week. Ed. M. Jones and Houston Oil Company's Crim (10-acre) 1, Winn Survey, logged first Pecan chalk at 2631 feet, with a surface elevation of 440 feet, and at last reports was drilling below 2800 feet. John W. Olvey and Sample's east offset on the same farm reported top Pecan at 2645 feet, and has drilled past 2900 feet. Cordova Union Oil Corporation et al's C. O. Christian 1, located west of these two tests, has set surface pipe. Federated Oil Company's Laird 1 is drilling below 2510 feet, and near Kilgore the outpost test of W. L. Brandon et al on the Richards farm has set surface pipe.

D. Harold Byrd in association with Gulf Production Company, Republic Production and others is rigging up to drill two tests on adjoining blocks about three miles northeast of Kilgore. R. H. Dearing & Sons have both contracts. One test will be drilled in the northwest corner of the Frank Elder 32-acre tract, Wm. J. McCurry Survey, while the other will be in the northwest part of the Camorras 817-acre tract, Haden Edwards Survey, or southwest of the above project.

Houston Oil Company is the only independent crude purchaser to invade the Kilgore field with a gathering and car rack system, having built a six-inch line to a rack near the town. This company is also erecting two 55,000-barrel steel tanks that were formerly in service in Arkansas at the rack site.

Extensions and Big Producers Feature Joiner Developments

Tyler, Texas.—Important extensions and big producers were included in the half dozen completions given the Joiner field, Rusk County, within the past week, thus removing all doubt as to the area becoming a major source of high gravity production. These wells averaged about 3500 barrels each on preliminary open flow gauges, and arrangements have been made for the marketing of the oil at prices ranging from 40 to 65 cents per barrel below the posted price for like quality and gravity crudes in the Mid-Continent. No appreciable amount of storage is available for the 13 completed wells in the field, and the owners have elected to dump the oil on the market at the best price obtainable.

Lide-Taylor Oil Company, Tyler, materially enlarged the prolific section of the field to the southwest when its Calvin Young 1 flowed 125 barrels oil per hour open through 2½-inch tubing from Woodbine sand at 3677-88 feet, and produced 1370 barrels during first 10 hours, partly pinched. This well is on a 40-acre lease, M. J. Prue Survey, and extended production nearly one mile to the southwest. Haynes Drilling Company, Inc., Shreveport, shortened the gap between the above outpost well and the main field, by flowing 2458 barrels of 40.6 gravity at 72° temperature oil during first 17 hours from sand at 3660-3672 feet. The latter was completed January 31, flowing through 2½-inch tubing, and made 98 barrels during first hour, and about five hours later tested good for 165 barrels per hour.

A trio of completions made near the only big producer in the Joiner field prior to the completion of the new group failed to show the effect of oil drainage that has taken place. Robert Oil Corporation, Breckenridge, et al's Ashby 1, located on the north 2½-acre drilling site of the 15.34-acre subdivision, was washed in through tubing, which was lowered to 3578 feet, and flowed an average of 105 barrels per hour for 10 hours. This well produced about 2500 barrels in 22 hours flowing open through three-inch tubing from sand at 3598-3627 feet, with a total depth of 3634 feet. Inland Waterways Pipe Line Company is to handle crude from this well on consignment to a refinery at Dallas. This line will also serve the jointly owned test of Deep Rock Oil Company et al on the Mayfield Alford 30.2-acre lease. The latter was completed from sand at 3613-3632 feet after drilling into shale to 3633 feet, flowing 3187 barrels during first 24 hours after washing in through 2½-inch tubing set at 3569 feet. Mayfield Alford 1 tested 41.8 gravity at 86° temperature.

Frank Foster-Jeffries and C. F. Kolp's Mayfield Alford 1, located on a nine-acre lease, also drilled through sand, and flowed 1844 barrels oil during first 11 hours from sand at 3602-3617 feet, with a total depth of 3630 feet. This producer was swabbed in via casing. It is to be served by the Rusk County Pipe Line Company, which is at work on a four-inch pipe line from the field to an 80,000-barrel steel tank and a refinery, both being erected near a 50-car capacity rack on the I.&G.N. Railroad. The latter physical properties are situated northeast of the field, and in the northwest part of the George W. Guthrie Survey. An attempt will be made to book crude contracts for prompt delivery from the well, as neither the large tank or the refinery will be in service for several weeks.

Will Determine Sand Qualities

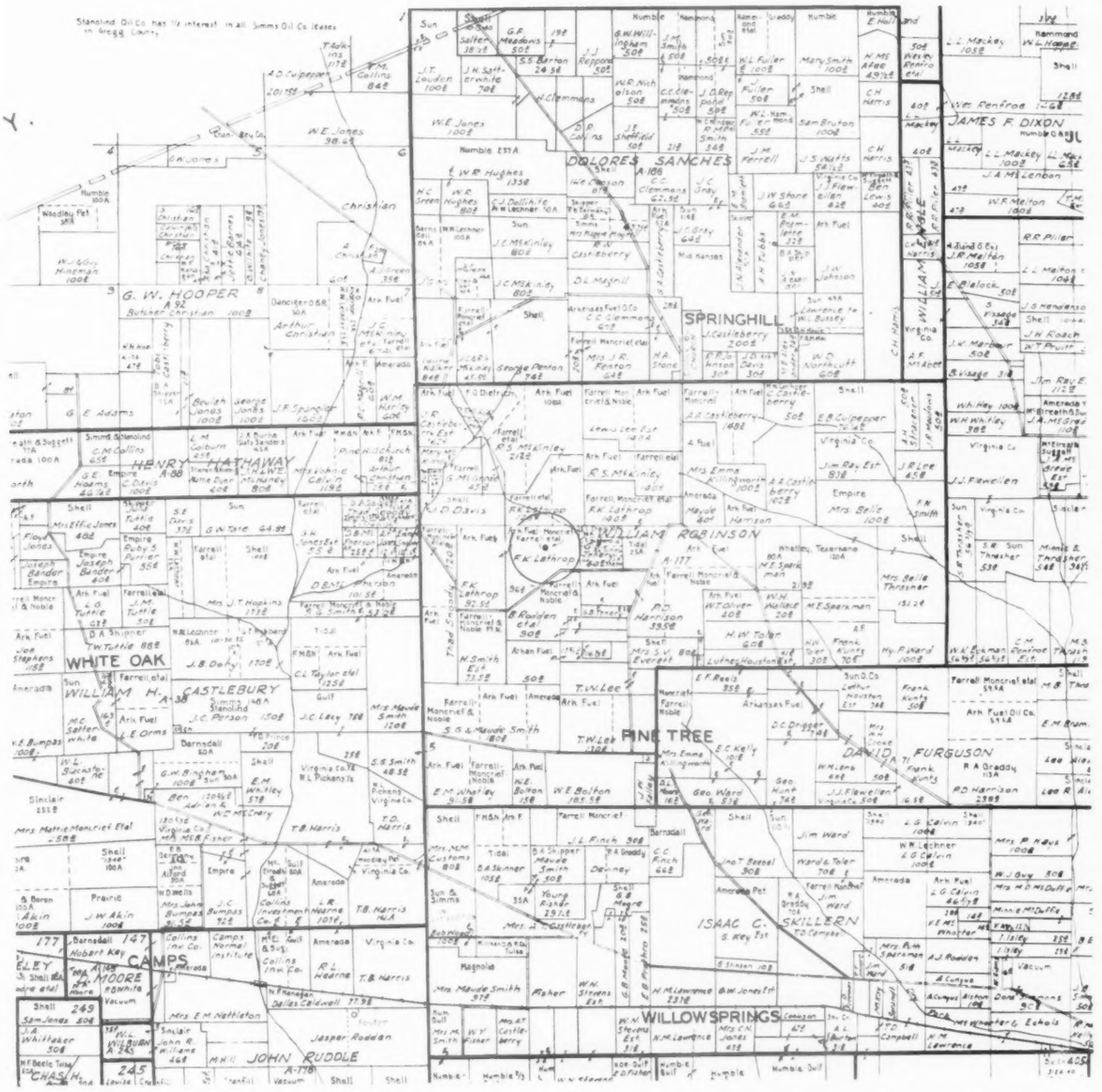
This group of new completions will determine the staying qualities of the oil and gas production from the Woodbine sand in the Joiner area, and operators are noting the fact that the sand thickness is not great, although water is absent in wells that have drilled through the oil and gas horizon. Until these completions were made the field had only one producer—Deep Rock-Foster et al's Ashby 1—that was capable of flush production, and it has averaged more than 3000 barrels 40-41 gravity oil daily during past three weeks. Although the gas production accompanying the oil flow of the big wells is of rich gasoline content the volume is less than usually found in virgin Woodbine sand areas. Such a condition makes it imperative that the wells be tubed and flowed against back

pressure, else the flowing life of the closely drilled areas may be brief.

The Joiner field has gotten the jump on the other two oil areas in the Gregg-Rusk County district in development work and also crude marketing facilities by reason of being the oldest of the trio. In addition to the pipe line companies mentioned above, the field will be served by Petroleum Marketing Corporation, which has a 50-car capacity rack, located near the other racks, with a six-inch trunk line extending to the heart of the field. This concern has contracted to take 5000 barrels of crude daily from the 2½-acre drilling site of Bert Shaw Oil Company and Imperator Oil Corporation for 90 days. The latter two concerns originally contracted to sell the oil to Ocean Oil & Pipe Line Company at 40 cents per barrel at the well, with one-half of the up and down changes in Mid-Continent prices to be absorbed. The pipe line company is paying Ocean Oil & Pipe Line Company 2½ cents per barrel on all oil handled, and assuming responsibility for transportation and market outlet.

Cherokee Pipe Line Company has been organized by a group

GREGG COUNTY DISCOVERY WELL



Courtesy Zingery Oil Map Company, Fort Worth.

Varied lease ownership surrounding the site of the discovery well of Gregg County, Texas, as shown by the above map, offers no encouragement for a conservative development and production program.

of Dallas operators now drilling their first test in the Joiner field, and plans are to lay a four-inch line to a rack at Overton should it become necessary to provide a private market outlet when production is scored. M. S. Church, Dallas attorney, incorporated the concern for his clients. Beacon Oil & Refining Company is making ready to erect a 2000-barrel skimming plant to the southeast of the field, and will take on connections via a four-inch line that has been ordered built from leases of Roy I. Carter et al to the plant site. H. W. Roberts and others will be associated with Carter in this project. Panola Pipe Line Company is preparing to increase the capacity of its rack from 19 to 50 cars. The latter has a four-inch line connected to the field, and was the first to be put in operation.

Major Drilling Campaign is Inevitable in Gregg County

Tyler, Texas.—Gregg County's lone wildcat oil producer, which was brought in January 26 by Farrell-Moncrief-Arkansas Fuel Oil Company et al on the Lathrop farm rated at 364 barrels high gravity oil per hour from sand at 3569-3587 feet, has been pinched to about 200 barrels daily pending completion of tank car rack facilities. The performance of this isolated producer has led to the starting of tests to the northeast and southwest by independents, and indications are that a major drilling campaign is inevitable for the area, as lease ownership within a few miles of the producer is in the hands of many companies and independent operators that will drill their holdings as long as any drainage takes place in the area.

Pending completion of a six-inch trunk line to affiliated refineries near Shreveport, Arkansas Fuel Oil Company is having constructed a three-mile, six-inch line from the well to a 50-car capacity rack at Willow Springs on the main line of the Texas Pacific Railroad, and about four miles west of Longview. This rack will be completed later in the week, but light shipments may commence before hand. A rush job will be made of the 70-mile trunk line to Shreveport, as the Gregg County crude will supplement, or displace tank car receipts of crude from other Texas fields by Louisiana Oil Refining Corporation.

E. E. Eslick et al are to be the first to get under way with exploration work near the Gregg County wildcat producer, having rigged up rotary to drill about one mile to the northeast on the 15-acre church lot, Dolores Sanches Survey. It is reported that this lease was obtained for a $50,000 oil payment from one-fourth of first production. Eslick et al also are to drill further to the northeast, having made location on the J. Castlebury tract. Frank Foster, active operator in the Joiner field, and associates are rigging up rotary to drill southwest of the Gregg County well. This location is in the northwest corner of the east 98-acre of the Jasper Rodden 198-acre tract, John Ruddle Survey, and near the railroad. Weekly Oil Corporation, Fort Worth, has contracted to drill about six miles northeast of the producer, and on the Ike Killingsworth farm, near center of an 1800-acre block, which extends over into Harrison County.

Division of acreage in the Gregg County discovery block by Arkansas Fuel Oil Company and the group of independents did not involve the latter's undivided half interest in the well and 96-acre site. These independents have leases on about 2500 acres radiating in all directions from the well, and offers have been made by several major companies, including Sinclair Oil & Gas Company after a visit to the well last week by Harry F. Sinclair. J. E. Farrell has a one-half interest in the divided acreage, and a one-fourth interest in the well and site. W. A. Moncrief and E. A. Showers together control a one-fourth interest in the divided acreage, while similar interest is held jointly by W. S. Noble and R. S. Baker. This latter quartet likewise own together a one-fourth interest in the well and site. Separation of interests were made after the well cored into the sand, but before its completion. The majority of this group desire to cash in on their adventure, and it is quite probable that one or more deals will be made shortly.

New East Texas Crude has Good Refining Qualities

Rusk and Gregg Counties, East Texas, the newest oil producing territory in the state, promise not only to become one of the largest the state has ever witnessed, but will yield sweet crude, with a relatively high gasoline recovery by skimming plant procedure. With this prolific condition existing the district will see the establishment of a large number of skimming plants refining the cheap crude with the building of plants rivaling a like condition in West Texas where sour crude attracted about 20 refiners two or three years ago. At this time two plants are building and several are proposed. Through pipe lines and tank car the crude will find its way to Shreveport, Dallas, Houston, and Middlewest refining centers.

The Rusk County crude is dark green in color, low in sulphur, runs 36 to 40 A. P. I. gravity, and by Hempel distillation yields 33 to 37 per cent sweet gasoline, 10 to 15 per cent kerosene, and a large yield of gas oil, which like the remaining fuel oil residue lends itself well to processing in the cracking unit. The crude has a pour test of about 25° F. and is wax bearing.

An analysis of crude from the Gregg County well, Moncrief & Farrell's Lathrop 1, shows 40.1 A. P. I. gravity, olive green color, good odor, 2.2 per cent B.S.&W. (wax), no water, 0.218 per cent sulfur, and a pour point below 45° F.

Gasoline from this crude, with the Hempel column was 38 per cent with a gravity of 57.5, I.B.P. 119, end point 435° F. Plus 30 color. Corrosion was negative, nearly sweet to the doctor test, good odor, and 0.02 per cent sulfur. This type of analysis indicates 42.6 per cent gas oil (no kerosene cut was taken) with 32.1 A. P. I. gravity, and pour point of 80° F. Residuum was 17.6 per cent of 14.8 deg. A. P. I. gravity, a flash of 595 and fire of 675° F.

Tyler, Texas.—Actual production in the Joiner field during the 24-hour period ending 7 a. m. February 2 was about 12,000 barrels, with one of the large wells shut-in for storage. Deep Rock Oil Company et al's Mayfield Alford 1 headed the list with a flow of 3000 barrels, while Lide-Taylor Oil Company's Young 1 flowed 2870 barrels. Robert Oil Corporation's Ashby 1 flowed 1815 barrels. All of the above are late completions, and flowing open through tubing. Foster-Deep Rock et al's Ashby 1 has been pinched to about 1800 barrels daily.

Great Falls, Mont.—In addition to the supply of natural gas which this city already has, there are two more concerns eager to furnish it with fuel at a lower rate. The present supply is furnished by Great Falls Gas Company. Municipalities Gas Corporation of Minneapolis offers much cheaper gas, but has twice failed to convince the city council of its financial reliability or of its possible gas resource. E. B. Coolidge is another applicant for franchise; he offers an adequate gas supply at much cheaper rates and calls attention to the undeveloped proved resources in structures in the northern part of the state. He now supplies Havre, Chinook, Sunburst, Sweetgrass, Oilmont and Ferdig. Council has not yet acted on his petition.

South Texas Field Developments

EARL POST, *Staff Correspondent, San Antonio, Texas*

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Four Completions, Six New Locations in Mirando Field

San Antonio, Texas. — The recent price reduction on Mirando crude oil prices apparently has had no effect on drilling, there being six new operations recorded during the week. Along with these were four completions, one oil well and three gassers.

The outstanding completion of the week was Claypool and Nickson's Garza 1, which extended the Muckelroy pool of Zapata County 2000 feet southward. The well has a sand at 1396-1402 feet, just below a rock at 1391-96 feet, which appears to be rather prolific. The well made several heads January 27. It was reported to have swabbed as high as 1000 barrels while being completed, which indicates that it likely will pump around 250 barrels. This test showed a small amount of production in the sand at 1391-96 feet, stratum where majority of wells in this pool are producing. The well is 2000 feet south of the Whicker producers, which are the most southerly producers in the field at this time.

Derrick is up for an offset test on block 11.

Two gassers were completed in the Muckelroy pool. Nordan and Morris' E. B. de los Santos 3 made 15,000,000 cubic feet with 530 pounds pressure at 1347-54 feet, while J. H. Winch's Alejandro Bustamante 3 showed 20,000,000 cubic feet gas with 510 pounds pressure at 1425-31 feet.

O. W. Killam's Fee 2, in the Mirando Valley (discovery pool) of Zapata County, made 2,500,000 cubic feet of gas with 350 pounds pressure at 1319-28 feet.

Several early completions are expected in the Muckelroy pool. J. I. Newton's I. G. Trevino 5 is waiting on cement after setting casing on top of the sand at 1261 feet. S. R. & C. Oil Company is bailing Trevino 12-A, which has the sand at 1252-86 feet.

In the wildcat territory, John J. O'Hern's S. Benavides 2 is testing a gas sand at 1612-19 feet. This well is located on block 19, Fansler and O'Hern subdivision of Carto Blanco ranch, Villa Grant.

Refugio Extension Well Not Up to Expectations

San Antonio, Texas.—Disappointing news comes from the west extension area of the Refugio field, where L. L. Smith's L. M. Rogers Heirs 1, November 28, 1930, came in for an initial flow of 800 barrels at 3634-52 feet. The Houston Oil Company's Rooke 14, a southwest offset to this test, deepened from the shallow gas sand, last week tested salt water at 3784 feet and has been shut down.

The Smith well extended Refugio's 3600-3700-foot horizon three miles to the west across the original gas area. This well, however, is the only producer at this level in spite of the fact that three tests have since been drilled in the vicinity.

Morgan and Rutherford, one-fourth mile due north of the Rogers well, recently tested salt water at 3684 feet, and is temporarily shut down.

Smith's Rogers 2, offset to the No. 1, came in a few weeks ago as a producer in this horizon, but soon began making considerable salt water and the liner was pulled to deepen the test. It is now drilling at 4755 feet. Should this well find production in the 5500-foot, 5700-foot or 6400-foot levels, the others in the immediate locality will be deepened.

The deep sands are holding the spotlight this time. During the week Moody-Seagraves Producing Company's O'Brien 1-A, in the eastern flank of the field, came in for better than 40 barrels an hour at 6458 feet, while United Production Company's Mitchell 5-A made 700 barrels at 6446 feet.

Houston Oil Company's 1-B Rooke, two miles southwest of Refugio and one-half mile west of production, was swabbed down to a total depth of 6194 feet and showed only a small amount of oil with practically no gas. Although no announcement has been made, it likely will be abandoned.

Moody-Seagraves Producing Company's Heard 3-B, south of the townsite, is resetting liner at 3661 feet. This well is showing considerable oil, but practically no gas. Heyser 1-B of the same company, also south of town, is drilling around 6150 feet, while preparations are being made to test the gas sand encountered in Strauch 1 on block 64 of the townsite, which has been deepened from the 3600-3700-foot sand. Moody-Seagraves have taken over the St. Johns lease of T. P. Morgan, south of the townsite, and are drilling No. 2-A at 3630 feet.

United Production Company's O'Brien 7 looks like a producer. Casing has been set at 6457 feet. This company also has set casing at 6446 feet in Shelton 3. Its Ryalls 6, west of Refugio, is waiting on cement at 3648 feet.

Darst Creek Potential Shows Slight Decrease When Gauged

Seguin, Texas.—There has been relatively slight decrease in average potential per well at Darst Creek during the past two months as revealed by comparing results of actual eight-hour gauges of wells last week with last previous gauges taken in a period ending November 29.

The new gauges which formed the basis for the January 29-February 28 proration schedule showed 251 wells with combined potential production of 160,262 barrels daily, or an average of 638 barrels per well. The gauges November 29 showed 232 completed wells with potential of 165,804 barrels, an average of 714 barrels per well.

While water percentages are not available, it is said that at its present age Darst Creek field is holding up better and showing less water than was the case in either the Salt Flat or Luling field, both of which are producing also from Edwards lime.

Re-gauging of wells in the Darst Creek field for proration potentials accounted for a gain in production during the week ending 7 a. m. January 27. The field averaged 33,220 barrels daily during this period from 257 wells, including a few non-prorated wells from crevices on nearby acreage.

Magnolia Petroleum Company's M. E. Roamell 1, which established a district record for initial production on March

28, 1930, when it earned a potential of 41,760 barrels daily from crevice at 2322 feet, virtually exhausted its oil production late in December. The owners decided to deepen the hole to the Edwards lime horizon with cable tools, but the latter could not make progress. A rotary rig is now drilling below 2385 feet. Magnolia Petroleum Company's M. T. Klein 7 is ready to spud. Sun Oil Company's Knoblock 13, an inside location, is drilling below 1300 feet.

Following are totals taken from the new Darst Creek proration table, showing number of wells and potentials by companies:

Company	No. Wells	Total Potential	Daily allowable
Abercrombie & Harrison	5	4,365	797
Cranfill & Reynolds	1	97	97
Empire Gas & Fuel Company	8	2,613	477
Gulf Production Company	51	36,405	6,709
Humble Oil & Refining Company	47	28,190	5,173
Louisiana Oil Refining Corp.	17	12,424	2,336
Magnolia Petroleum Company	45	15,016	2,919
Penn Oil Company	1	65	65
Stroube & Stroube	1	95	95
Sun Oil Company	12	15,253	2,785
The Texas Company	55	43,349	7,921
Dr. F. L. Thompson	1	....	....
Trinity Drillers	3	907	208
H. H. Weinert 15 A.	1	405	74
H. H. Weinert et al	1	90	90
H. H. Weinert	1	90	90
Max Starcke, Receiver	1	900	164
Field total	251	160,262	30,000

PROPOSED TEXAS LAW WOULD CONSERVE GAS ENERGY

(*Continued from page 21*)

Section 14 provides that this gas-oil law shall be cumulative of all laws of the state regulating the conservation of oil and gas not in direct conflict.

Section 15 says that, if any of the provisions of the act shall be held unconstitutional or for any other reason shall be held void, such holding shall not have the effect to nullify the remaining parts, but the parts not so held to be unconstitutional or void shall remain in full force and effect.

Section 16 provides for suspension of the constitutional rule requiring bills to be read on three consecutive days because of the fact that there is no law adequately providing for the prevention of the waste of natural gas in the State of Texas.

Producer Defines New Area in Bexar County

San Antonio, Texas.—The completion of Penn Oil Company's Cooksey 2, 400 feet northwest of the discovery test, as a producer definitely defines another producing structure in Bexar County. The new well has been placed on pump and indications are that it will make around 30 barrels settled production. It has the sand at 1388-91 feet with the total depth at 1480 feet. The 6⅝-inch casing is set at 1374 feet.

The discovery well, Cooksey 1, was completed last October in the Taylor marl at 1410-61 feet, settling down to a 40-barrel producer.

Both wells are located on an 80-acre tract in the Rialls No. 11 Survey, 11 miles east of San Antonio and four miles from the Wilson County line. This tract is part of a 1370-acre unitized block, part of a 10,000-acre drilling block owned jointly by the Sun Oil Company and Penn. Those participating in the unit are the Penn, Sun, Magnolia Petroleum Company, C. L. Witherspoon, Jake Jarmon and J. D. Collett.

A. P. I. Crude Oil Testing Code Ready for Distribution

The "American Petroleum Institute Code No. 25 for Measuring, Sampling and Testing Crude Oil (Tentative)," has been published in a second edition, dated January, 1931, and now is available for general distribution throughout the industry. The new edition is a revision of the September, 1930, proof copy and contains the changes adopted at the eleventh annual meeting of the Institute at Chicago last November as summarized in the report of the Institute's Division of Production central committee on measuring, sampling and testing crude oil.

The objective of the tentative code is a unification of the wide variety of methods and practices employed in measuring, sampling and testing crude oil. In instances where it has been impossible to obtain national agreement upon a single method, exceptions have been noted and in some cases alternative methods described.

Many companies representative of all sections of the country cooperated in the preparation of the code, and it is hoped it generally will be used as a basis for company procedure and of material assistance in promoting uniformity in methods and practices involved in handling crude

Production Report All Oil Wells in Texas.

Figures compiled by oil and gas

DISTRICTS	Number of producing oil wells	Av. daily prod. oil, all wells	Cu. ft. gas daily, all oil wells	Gas-Oil ratio Cu. ft. gas per bbl. oil	Cu. ft. raw gas wasted
Austin Number 1	641	10,888	3,700,000	340	2,950,000
San Antonio Number 2	3,600	70,069	32,390,000	462	29,000,000
Houston Number 3	1,037	68,197	24,129,000	354	2,101,000
Beaumont Number 4	1,693	62,750	18,786,000	300	1,500,000
Dallas Number 5	2,326	37,554	10,376,000	276	.....
Eastland Number 6	1,344	4,681	46,867,000	10,012	4,146,000
Cisco Number 7	4,883	13,756	75,143,000	5,462	605,000
Coleman Number 8	2,390	7,238	14,398,000	1,975	.....
Midland Number 9	1,042	72,705	63,748,000	879	48,098,000
Olney Number 10	3,925	27,000	33,877,000	1,254	5,000,000
Wichita Falls Number 11	4,148	18,544	7,928,501	427	.....
Electra Number 12	5,784	31,724	8,919,000	281	.....
Amarillo Number 13	890	22,305	594,017,000	29,450	55,475,000
San Angelo Number 14	301	23,218	108,680,000	4,250	.....
Laredo Number 15	1,111	42,433	201,479,000	4,771	183,125,000
Pampa Number 16	1,008	62,994	656,678,000	9,771	50,000,000
Fort Stockton Number 17	1,117	137,315	140,306,000	1,023	79,753,000
Tyler Number 18	155	3,069	4,187,000	1,364	.....
Total	37,395	716,439	2,045,808,501		461,753,000

oil throughout the entire country. Where practices in different areas vary, it is believed the code will be of value in promoting a higher degree of regional standardization.

The book, a publication of 40 pages, covers tank measurement and calibration, gaging, sampling and testing crude oil, general and marine; suggested forms for numbering tanks and for gage tables; tentative method of test for gravity of petroleum and petroleum products by means of the hydrometer, and standard methods of test for water and sediment in petroleum products by means of centrifuge. A section covering accounting forms and methods is in process of development.

Copies of the code may be obtained for 50 cents each, with discounts for quantity purchases, from the Institute.

Kerr County Well Gets Test After Resetting on Packer

San Antonio, Texas.—Evans and Gant are removing the lead and wool plug at 3388-91 feet in the bottom of their Jeff Love 1, discovery well of Kerr County pool, 45 miles southwest of Kerrville. The casing has been raised one joint and reset on packer. Another pumping test of the hole is planned. It is believed that a large part of the water was coming from an upper sand and was flowing through the edge of the casing. A large amount of the oil also is believed to have been cut off when the well was plugged back.

In the surrounding area, Evans and Gant's Seiker and Mears, two miles northeast of the discovery, has been spudded and is now drilling around 300 feet, while the same operators' Estle Young 1, northeast of the Love well, is rigging up. Both tests are in Kerr.

In Real County, Gant and Kilgore and Eastland Oil Company are rigging up Dan Auld 1, three miles southwest of the discovery. Evans and Sprinkle et al's Haby 1, seven miles southwest of the Love well, and Marcus Auld 1, section 15, was drilling below 800 feet.

San Antonio, Texas.—The second well to be drilled by the United North and South Development Company on the Wells ranch in northern Gonzales County has been abandoned in the Edwards lime at 4962 feet after testing sulphur water just above that depth. The well hit the Edwards at 4919 feet. It topped the Austin chalk at 4501 feet. This test is 1250 feet southwest of the Wells 1 in the James Johnson one-third league, which also was dry in the Edwards lime.

Vacuum Oil Company Quits Duval County Wildcat Test

San Antonio, Texas.—The Vacuum Oil Company has abandoned its Duval County Ranch Company 1-A wildcat on Survey 280, Duval County, at 3800 feet. The well is six miles southwest of the S. R. & C. pool. The well showed three joints of mud at 1803-26 feet in a stratum, which probably is the same horizon that S. R. & C. Company got a 200-barrel producer last September. The producer, located on Survey 293, had its sand at 1731-33 feet.

In the Schoolfield and O'Byrne field, 10 miles east of the S. R. & C. pool, F. M. Frasher and R. F. Schoolfield's Bishop Duval Land Company 2, Survey 135, is drilling around 900 feet.

San Antonio, Texas.—Shell Petroleum Corporation's Fritz Junker well, DeWitt County, has been abandoned at 6512 feet. The well is the deepest ever drilled in this immediate district. It is located on the John F. Pettus Survey, two miles northeast of Meyersville. The well was started by the Penn Oil Company but taken over by the Shell to be completed.

Claiborne Parish Deep Test Drilling Ahead at 3296 Feet

Shreveport.—Louisiana Oil Refining Corporation's Langston 10, Section 19-21-7w, Claiborne Parish, Louisiana, a test designed for 4500 or 5000 feet, and located in the old Homer shallow field, tested salt water through drill stem in 20 feet of sand from 3243 to 3263 feet, during the last week. Later the well was reported drilling in hard sand at 3296 feet.

Louisiana Gas & Fuel Company late last week was coring shale and sand at 3265 feet in Tensas Delta B-2, SW NE Section 23-7-4e, a wildcat in LaSalle Parish.

Ouachita Natural Oil & Gas Company, Inc., during the past week cemented six-inch casing at 2101 feet in Smith 1, SW NE Section 36-20-2e, a Union Parish wildcat. Total depth is 2141 feet. H. I. Morgan and associates were losing returns at 407 feet in Kendricks B-12, Section 22-19-11, the latest of a series of tests to the upper Trinity at 1800-1900 feet on the southwest flank of the shallow Bellevue structure in Bossier Parish.

San Antonio.—Magnolia Petroleum Company's Kinney County wildcat, Wardlaw 1, is drilling at 5080 feet.

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and Disposition of Gas, October 31, 1931

supervisors of the Texas Railroad Commission.

Raw gas used for fuel and lease purposes	Cu. ft. gas into casinghead plants	Cu. ft. residue gas wasted	Cu. ft. residue gas used on lease	Cu. ft. residue gas used for domestic and Ind. fuel	Cu. ft. residue gas to carbon black plants
650,000	100,000	.....	100,000	.....	.....
890,000	2,500,000	72,000	2,356,000	72,000	.....
22,022,000	No casinghead gas plants				
17,286,000	No casinghead gas plants				
.....	10,376,000	1,800,000	8,294,000	262,000	.....
3,958,000	38,763,000	499,000	8,417,000	26,160,000	3,687,000
880,000	73,658,000	343,000	17,311,000	42,146,000	13,858,000
.....	14,398,000	400,000	5,398,000	7,400,000	1,200,000
12,050,000	3,600,000	1,100,000	2,500,000	.....	.....
15,000,000	13,877,000	1,836,000	6,922,000	4,219,000	900,000
1,292,000	6,636,501	336,501	2,300,000	4,000,000	.....
125,000	8,794,000	.....	3,047,000	5,747,000	.....
.....	538,542,000	219,946,000	105,048,000	.....	213,548,000
.....	108,680,000	108,580,000	100,000	.....	.....
18,354,000	No casinghead plants				
none	606,678,000	224,604,000	131,890,000	.....	250,184,000
18,753,000	42,000,000	25,900,000	6,100,000	.....	.....
.....	4,187,000	146,000	1,629,000	2,412,000	.....
111,266,000	1,472,789,501	595,562,501	301,412,000	92,430,000	483,377,000

Gulf Coast Field Developments

JACK LOGAN, *Staff Representative, Houston, Texas*

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Opening of Coastal Field Shows Value of Geophysics

Houston.—Completion of Vacuum Oil Company's wildcat, Bert Waite 1, first test on the geophysically discovered Iowa salt dome prospect, South Louisiana, as a 300-barrel oil producer from sand at 5001-5008 feet, constitutes a further example of the amazing results repeatedly obtained through geophysical exploration.

Previous instances along the Texas-Louisiana Gulf Coast in which production has been established with the first well following geophysical work have included opening of Sugar Land, Port Neches and Bloomington fields in Texas, and Port Barre, East Hackberry, Lake Pelto, Bay St. Elaine, Dog Lake, and Cameron Meadows in South Louisiana. Numerous other fields have come in with the second or third test following geophysical work, among them being Hankamer and Esperson; while there have been many other instances in which dome formation (cap rock or salt) has been established in one, two or three tests. At the same time production has been established on some of the geophysical prospects only after considerable drilling, for example Moss Bluff dome, which only recently began producing oil (from a 5600-5850-foot horizon) after around 20 wells had been drilled, although dome formation was proved in an early test.

One joint of 6⅝-inch screen was set in the sand in Vacuum Oil Company's Waite 1, and the well came in last week flowing 28.4 gravity pipe line oil at the rate of 300 barrels daily through a ⅜-inch choke, registering 750 pounds working pressure. Drill pipe was still in the hole, and through it the well showed 1150 pounds pressure. Nine and five-eighths inch casing is cemented at 4985 feet.

Early this week the well was still shut in. When it was completed 1000 barrels of steel storage was in readiness, and since then three additional 1000-barrel tanks have been erected.

Location of this wildcat producer is 2½ miles northwest of the town of Iowa, being in the extreme western edge of Calcasieu Parish, 225 feet north and 225 feet west of the southeast corner of Section 12-9s-7w. (It is therefore only 225 feet west of the line dividing Calcasieu and Jefferson Davis Parishes.)

In connection with the geophysical work upon which the location of this well was based, it should prove interesting to reprint an excerpt from a development story published in these columns November 14, 1930, shortly after the location was made. Following is the excerpt:

"This is distinguished as probably the most thoroughly tested salt dome prospect of the Gulf Coast from the standpoint of geophysical work, having been worked repeatedly by torsion balance and seismograph.

"The dome is interpreted as lying about half in Calcasieu Parish and half in Jefferson Davis Parish, with the Vacuum Oil Company location somewhat northwest of the top of the dome. . . .

"A particularly interesting feature of the prospect is that it is interpreted as being relatively deep—around 4000 feet or possibly a little more to the top of the dome. At that depth it would be around 500 feet deeper than Sugar Land, Fort Bend County, Texas, which is probably the most important coastal field yet discovered by geophysical methods."

The fulfillment of the geophysical interpretation is noteworthy.

Vacuum Oil Company's leases on this prospect comprise more than 600 acres. Shell Petroleum Corporation is an important lease owner on the prospect, and original discovery of the dome is credited to the seismograph of that company.

Test Showing for Western Extension of Raccoon Bend

Houston.—A further east extension of Raccoon Bend field was considered probable late last week when Humble Oil & Refining Company began swabbing Hardy B-3 at 3257 feet.

This well is 600 feet east and 270 feet north of Hardy B-2, most easterly Raccoon Bend producer, it in turn being 2000 feet north and 2000 feet east of the Duncan State Land producer in the Brazos River bed. Hard B-2 was the first producer of the field on the Waller County side of the Brazos, the main portion of the field being in Austin County.

Humble Oil & Refining Company's Sanders 6 is swabbing at 3484 feet, showing oil and gas; Sherrod 4 is drilling at 3045 feet; Muellar 9 is drilling shale at 2059 feet; Woodley 10, a workover, ran tubing to 3400 feet and is swabbing; Diemar 4 has set surface casing; Reese B-1 is drilling shale at 4531 feet.

Houston.—The Texas Company has abandoned Calcasieu Lake State A-6, South Calcasieu Lake dome, Cameron Parish, Louisiana, in salt at 3795 feet, having drilled a few feet into the salt. This is the sixth completed test on the dome, which lies in the southern part of Calcasieu Lake, and which was discovered by seismograph, and although most of the wells have drilled into salt or cap rock, no production has yet been established.

Houston.—Calcasieu Oil Company has completed Watkins 25 in Section 13-12s-10w, southeast flank of East Hackberry dome, Cameron Parish, Louisiana, as a 1000-barrel flowing well at 2846 feet, flowing 22.8 gravity pipe line oil through one-half inch choke at that rate.

Houston.—United Production Corporation has abandoned its Ray 28 in Goliad County at a depth of 4096 feet after having passed through the Pettus sand at 4065-96 feet. This test is located just across the Goliad County line, 900 feet from the north line and 1225 feet from the east line of the Willis A. Moore Survey. No favorable showing was encountered from the Pettus sand and it was decided that the test would be abandoned when the bit started into shale just below the sand.

GAS AND PIPE LINES ACTIVITIES

(*Continued from Page* 55)

construction of a 200-mile, 20-26-inch gas line between Kettleman Hills and the San Francisco bay district by Standard Oil Company and Pacific Gas and Electric Company. At the time of its completion, it was the world's largest gas line and made gas from this great field available to new intermediate districts, besides eliminating possibility of a break in service through trouble in the original line built in 1929 by Pacific Gas and Electric Company. The line took the inland route, via Tracy, entering the bay district at Richmond, whereas the original line inclined to the east at Panoche Pass to pass by Gilroy and Milpitas Junction and enter both San Francisco and Oakland from a point south of the bay.

The new line included 120 miles of 26-inch pipe, 25 miles of 24-inch, 45 miles of 22-inch and 10 miles of 20-inch. It has a capacity of 138,000,000 cubic feet without compressors, and perhaps 200,000,000 cubic feet under ideal conditions with compressors. It was the first 26-inch, high pressure gas main laid in the United States. Electric welding was used and the portions laid in corrosive soil protected by a new type of asphaltic-mastic coating developed by Standard Oil Company. The pipe was 5/16 inch thick and came principally in 40-foot joints.

The construction ot the line involved the use of advanced engineering technique which facilitated the work. Special "wrinkle" joints were inserted where difficult angles were required and where allowances for expansion was necessary.

An 80-mile, 16-inch line was completed between Patterson, a point along the main line described in previous paragraphs, and Sacramento, via Stockton, making Kettleman Hills gas available to the capital city.

Many Other Lines Built

Many other gas lines were built as the result of the construction of the two main lines between Kettleman Hills and the San Francisco bay district. Pacific Gas and Electric Company finished a 40-mile, 22-inch line between Milpitas and a point on the 22-26-inch line built jointly by this company and Standard Oil Company of California. This connecting line makes gas available to San Francisco and Oakland on short notice, in case of a break along the original transmission line. Other connecting lines were laid which sent gas as far north as Chico.

Additions were completed to large gas lines which serve Fresno, Visalia, Modesto, Murdock, Hanford and other cities, the sizes ranging from 6-inch to 10-inch. The origin of all this gas is Kettleman Hills.

Southern California Gas Company completed a 70-mile, 20-inch gas line from Kettleman Hills to a point near Taft. This was primarily to complete the additions to the transmission system between the San Joaquin Valley and the Los Angeles basin. The line was of straight welded construction.

Southern Counties Gas Company laid about 90 miles of 20-26-inch gas line over the Ridge Route to connect the San Joaquin valley with Los Angeles basin cities. This line started at a point near Grapevine and extended to the Los Angeles city limits. Kettleman Hills gas may be brought to Los Angeles in any desired quantity, a theoretically unbroken line existing between the principal sources of supply and distribution.

Pipe line work of the past two years has connected Los Angeles and San Francisco, figuratively speaking, connections making it possible to form an unbroken line between the two points. Kettleman Hills is located almost midway between the two cities, an almost ideal location.

Southern Counties Gas Company completed a 40-mile, 16-inch gas line between the Elwood field and Ventura, serving the immediate district, besides making Elwood gas available to Los Angeles.

Union Oil Company laid an 81-mile, six-inch line between Kettleman Hills and Avila, the latter a point on the Pacific coast. The line is now being used for transportation of gasoline, but could be used as an oil line.

Standard Oil Company of California launched the world's largest submarine loading line in Estero Bay, San Luis Obispo County, during the year. The line was laid so that Kettleman Hills oil may be loaded into tankers directly from the storage tanks on the ridge. It is of 16-inch welded steel construction and extends from the beach along the bottom of the ocean to a point more than 3000 feet outside the mean high tide line. This line marks a distinct forward step in loading and terminal facilities, eliminating the necessity for a wharf.

Pipe line construction during 1931 should not exceed that finished in 1930, and may fall short of the previous year.

Adequate Eating Facilities Are Planned for Exposition

Los Angeles.—Contract has been let for a 100-foot by 40-foot extension to the main building at the Oil Equipment and Engineering Exposition to provide adequate eating facilities for the Second Annual Exposition which will be held in Los Angeles from March 16 to 22, 1931. The original plans called for a temporary building for this purpose but the present indications of attendance have made it necessary to provide a larger space than was formerly contemplated. This new extension will be of white stucco to conform to the architecture of the other buildings and the inside walls will be plastered and finished throughout. Actual work on the extension has already been started.

Arrangement have also been completed for the serving of meals during the second meeting. Both a la carte and table d'hote service will be available during the hours that the show is open and catering service will be provided for the technical societies which will hold dinners in connection with their meetings.

The 80 by 40-foot extension that will be devoted to the meetings of the various engineering societies has been completed as far as the walls and floor are concerned. The inside will be finished at the same time as the restaurant. This meeting room will be available for technical meetings throughout the year in connection with the permanent exposition as well as during the annual shows.

A railroad office will be located at the exposition building and all reservations can be arranged and tickets purchased without the inconvenience of visiting a railroad ticket office. This will be a valuable service for the men from other parts of the country and will save them considerable time.

Special railroad rates have also been arranged for all visitors coming to Los Angeles to attend any of the several society meetings which will be held during the time the exposition is in session.

Certificates for these will be validated by the exposition personnel and considerable trouble will thus be saved the individual societies whose members will take advantage of the reduced fare provided for them.

American Express Company is also assisting the transportation problem in foreign countries and is helping oil men from all over Europe to arrange their trip to the United States. It is, moreover, advertising the Oil Equipment and Engineering Exposition in all the cities where it maintains offices.

Louisiana--Arkansas Field Notes

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Nevada County, Arkansas, Oil Area Extension Anticipated

Shreveport. — Possibility that the shallow Nevada County oil area of Arkansas may eventually extended six miles southwest into LaFayette County, appeared during the week ending February 1, when Smitherman and McDonald tested three joints of mud and a show of heavy oil in one hour through drill stem from 1178 to 1192 feet in Reed 1, SE NW NW Section 16-15-22. An oil sand had been cored the last four feet.

J. D. Reynolds' Pace 1, NE SE Section 21-15-19, Ouachita County, Arkansas, in the Stephens townsite, is expected to make a pumper at 2204 feet, there being 1000 feet of oil in the hole. Six-inch casing was cemented at 2149 feet.

One new wildcat test was started during the week in Arkansas, this being Waldron Oil & Gas Company's J. G. White 1, SW NW Section 17-3n-29w, Scott County, which late in the week was drilling at 775 feet after getting a gas show at 400 feet.

S. C. Jeffus, Trustee, is deepening Underwood 1, NW NE Section 4-20-8e, in Clay County, which recently was completed as a one and a half million foot gasser at the shallow depth of 330 feet. The well is now drilling at 502 feet.

Two wells outside the Smackover producing field and on the southwest flank of the field were put on the beam during the week and are making oil and salt water. Both are owned by H. L. Hunt, Incorporated. Swilley 5, NE NE Section 28-16-16, is pumping 60 barrels of oil and 15 barrels of salt water at 2689 feet and Swilley 6, SE SE Section 21-16-16, is pumping 40 barrels of oil and a like amount of salt water at total depth of 2711 feet.

Tests for Harrison County, East Texas, Getting Started

Shreveport.—Karona Petroleum Company, which recently secured a 7000-acre block of wildcat leases in Harrison County, East Texas, during the week ending January 31, laid derrick pattern for its first test, A. J. Bohler 1, S. F. Sparks Survey. Materials are on the ground for O. H. Parkening's Hall-Covin 1, Walter H. Payne Survey.

A leasing play through north and northwest Harrison County and into Marion County in an effort to follow the Woodbine shore line continues especially in the vicinity of Cypress Bayou. More than 2000 leases have been filed with the clerk of court at Marshall, county seat, since January 1.

Among operators who blocked acreage during the last week in Panola County where two forces are contributing to activity, one the nearness of the Henderson part of the Rusk County oil field, and the other the recently opened Trinity gas zone horizon in the old Bethany field, were J. B. Mosely of Dallas, who has between 3000 and 4000 acres centering around the Isabella Hanks Survey, seven miles west of Carthage, the county seat. The leases call for a 3000-foot test by February 15. W. L. Jeffus and L. P. Lee of Oklahoma have completed a 6000-acre block centering around the A. Ferguson Survey, and plan their first test by early summer.

Two locations were made during the last week for Trinity zone tests in Bethany, both being in the B. C. Jordan Survey. One of the tests is for United Production Corporation's Steele 17 and the other for Neff and associates' Brumble 6.

Daily Oil & Gas Company's Rucks Heirs 1, John Palmer Survey, Panola County, topped chalk at 1352 feet and late last week was still drilling in that formation at 1687 feet.

Complete Large Gas Well Northwest of Greenwood

Shreveport.—Junior Oil & Gas Company's Breard 1, Section 9-18-16, Caddo Parish, a mile northwest of a shallow gas producing horizon of the Greenwood gas field, where wells are yielding small production at the 900-1000-foot level, blew in Sunday, February 1, at 2778 feet with 10 feet of sand, making an estimated gas yield of 30,000,000 to 40,000,000 feet of dry gas daily. The well blew in as drill stem was being run in the hole. Part of the drill stem is still in the hole. No gauge was obtained and rock pressure is estimated at 1100 pounds. Six-inch casing was cemented at 2740 feet.

The sand is believed to be stray sand of the Tokio (Woodbine series) but is on the Sabine uplift and is not any part of the Woodbine shore line for which the play in the border counties of East Texas is being made on the theory that the Woodbine producing sand in Rusk and Gregg Counties links up with the Tokio of Pine Island and Dixie of Caddo Parish.

Junior Oil & Gas Company is controlled by Belchic and Laskey of Shreveport, independent operators. It is conveniently located to two trunk pipe lines, one being United Gas Company's line from Monroe to Dallas and the other being Arkansas Natural Gas Corporation's trunk to Little Rock and other Arkansas cities.

Third and Largest Gas Well Completed in Rodessa Field

Shreveport.—The new Rodessa gas field of northwest Caddo Parish, Louisiana, added its third and largest gas producer during the week ending February 1 when United Production Corporation's Wall 1, NW SE Section 33-23-16, was completed at 5522 feet with eight feet of broken sand and lime of the upper Trinity zone making an estimated daily yield of 70,000,000 to 100,000,000 cubic feet of gas. Rock pressure was 2300 pounds. Seven-inch casing was cemented at 5160 feet.

The new gasser is 1500 feet southwest of the discovery well of the field completed in the same section. The previous week United Production Corporation had added the second well of the field 1800 feet east by north of the discovery well. The gasoline content runs 800 to 1000 gallons per 1,000,000 cubic feet of gas.

The field is the deepest in North Louisiana. United Production Corporation has laid derrick pattern for another test, Emmons 1, 1337 feet east and 669 feet north of southwest corner, Section 27-23-16. United Production Corporation owns several thousand acres surrounding the three gassers which was acquired from R. W. Norton, Shreveport independent, who completed the first of the three deep gassers.

Interest in Jackson Area Centers Around Edge Well

Jackson, Miss.—Interest in the Jackson gas field during the week ending January 31 was centered for the most part in Gulf Refining Company's McLaurin 1, NE SW NE Section 30-6-2e, Hinds County, two miles northeast of the northeast part of the gas producing area where the first commercial gasser of the field was obtained. McLaurin 1, in which nine-inch was cemented several weeks ago at 2466 feet in Midway black shale which was picked up at 2392 feet, during the past week was bailed at total depth of 2515 feet, 30 feet in the Midway chalk, and showed considerable gas, a trace of salt water and a little oil. However, it is being drilled deeper into the chalk.

The well was first bailed dry at 2487 feet in two feet of chalk and then at 2490 feet it was bailed down 1500 feet without showing anything. Later being deepened to 2515 feet, it made gas with only a trace of salt water and show of oil when bailed down 800 feet.

Only one gasser was completed in the Jackson field during the past week this being Love Petroleum Company's Homestead 1 (formerly Taylor 1), SE NW Section 34-6-1e, a mile east and slightly south of the northwest part of the field and an edge well to the north of the producing area. Its gas yield is estimated at 5,000,000 to 10,000,000 feet of gas daily with a trace of salt water, which may indicate it to be on the edge of the gas field. Elevation of the gasser is 314 feet. Midway black shale was topped at 2342 feet and the Midway chalk at 2450 feet in which five feet were penetrated; 6⅝-inch casing was cemented at 2420 feet. Bob Taylor 1, SW NE Section 34-6-1e, was spudded by the same company during the week.

Two new locations were made in the Jackson field for the week, both in Hinds County. Love and associates have rig up for Payne 1, SW SW Section 27-6-1e, and United Production Corporation will try a test several miles northwest of the field in School Board 1, Section 16-6-1e, where derrick pattern was run.

Testing of a gas show in glauconic sand at 1532-50 feet was halted in Central Oil & Gas Company's Cameron 1, SE SE Section 11-9n-1e, Madison County, just north of Hinds County, when boiler at the well blew up while plug was being drilled. Operations are shut down awaiting arrival of a new boiler.

Two miles south of gas production in Rankin County part of the field, Ganzel and associates' Stallings 1, NE NE Section 25-5-1e, which checked low, topping the Midway shale at 2579 feet and the chalk at 2628 feet, tested sixteen fourbles of salt water through drill stem in nine minutes from 2628 to 2649 feet. However, drilling is still under way in the chalk at 2675 feet.

In South Central Mississippi, 70 miles south of Jackson, Mississippi Gulf Oil & Gas Company has shut down at 3000 feet, contract depth, in a sandy shale formation in Pope 1, NW NE Section 35-8n-16w, Covington County. Wilcox was topped at 2100 feet. United Production Corporation's McIntosh 1, Section 5-8n-16w, of the same county, with elevation of 321.5 feet, was drilling sand at 2803 feet last week.

Collins and associates' Carter 1, SE SE Section 29-11n-12e, Neshoba County, Central East Mississippi, near Philadelphia, was spudded during the week and was drilling clay formation at 880 feet after 12½-inch surface casing was cemented at 97 feet.

Shell Petroleum Corporation which recently completed an ownership map of Amite County, Southwest Mississippi, has transferred four map men and two geologists to Wilkinson County, southwest border county, where a similar class of work will be done.

It is reported here that Gulf Refining Company will drill two tests on a block of some 30,000 acres in Clarke County, an east border county in South Central Mississippi, where a series of 23 core drill tests was recently completed. Leases are being taken to the eastward of where the main block lay; the drilling obligations for land now being secured, being to drill a test by next August 1 at a location to be selected somewhere in Section 8- to 29, inclusive, of Township 2n, range 16w. The test will be 3000 feet. The original leases call for a test by March 17 and they are mostly blocked around Section 15 and 16, Township 2n-15e and Sections 5 to 28n-2n-15e, and Section 7, 18, 19 and 30-2-16e. It is probable the test on the latter or originally core drilled block will be Dabbs 1, Section 13-2-15e and the test to be started by August 1 will be on Long Bell Lumber Company acreage.

Zwolle Extension Well Has Production Increase

Shreveport.—Loring Oil Company's Bowman-Hicks 15, NE NW SE Section 2-7-12, a connecting link between the Zwolle east field proper and a recently opened 1½-mile extension to the south, which came in a fortnight ago estimated at 2000 barrels of oil daily, during the week ending February 1 increased its flow to a maximum of 325 barrels hourly (7800 barrels daily) through five-eighths-inch choke. This well is more than twice as large as any previous producer in the field as a result of its increased flow. Later due to lack of sufficient storage facilities was choked in to a three-eighths-inch choke through which on Sunday, February 1, it was making 185 barrels per hour. This well topped Zwolle marl at 2234 feet and the chalk at 2244 feet, total depth being 2263 feet.

There have been no offset locations made by Loring Oil Company, which is one of the largest operators in the Zwolle field.

Three new locations were made in Zwolle during the week, all being well outside any of the producing offshoots or the main field. Davis and associates have rig up for Polly 1, 18-8-12. Caddo-Sabine Syndicate have rig up for Smith 1, Section 8-7-10 and Merritt, Trustee, made location for Byrd 1, SE NW Section 1-7-11. There were five new locations made in the Richland Parish gas field. In East Central Louisiana, Arkansas Fuel Oil Company spudded its first test on a large block of acreage recently secured from A. C. Glassell of Shreveport. The test is Alexander 1, Section 47-8-9e, in which 12½-inch surface casing was cemented at 152 feet.

In the east Zwolle field in Section 33-8-12, Loring Oil Company's Bowman-Hicks 14 is pumping 350 barrels of oil daily from total depth of 2495 feet. In the south extension of the east Zwolle field Pelican Natural Gas Company's Sabine 7, Section 11-7-12, is pumping 25 barrels from total depth of 2399 feet.

Four efforts at extension of the east field ended in failures during the past week.

McDaniels and associates' Batson 2, Section 16-8-12, 2¼ miles north of the east field producing area, was abandoned as a dry hole at total depth of 2625 feet in the Zwolle chalk. Merritt and associates' Louisiana Long Leaf 1, Section 33-8-11, a half mile north of the southeast tip of production, was dry at total depth of 2500 feet in the chalk. Tom David's Smith 1, nine miles east of production, was abandoned as a dry hole at total depth of 2720 feet. The Texas Company abandoned Stille 2, Section 3-7-11, as dry at 2600 feet.

Completions for Past Week in U. S. Fields

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For Tabulation and Comparison See Market Section

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
OUACHITA COUNTY (Smackover)—		
J. E. Crosbie, Inc., Sewell 6, 33-15-15 (sec. compl.)	12	1980
Sewell 11, 33-15-15 (Sec. compl.)	10	2310
Sewell 13, 33-15-15 (Sec. compl.)	10	2308
UNION COUNTY (Smackover)—		
J. E. Crosbie, Inc., Flenniken 7, 9-16-15	5	2093

CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
INGLEWOOD—		
Hugh Grant, Inglewood 5	75	6160
LONG BEACH—		
M. B. H. Drilling Co., Flowerstate 1	200	7265
J. E. O'Donnell, Walker 1	350	5350
Ventana Oil Co., No. 1	50	7716
ORELLA-CAPITAN—		
General Pet. Corp., Erburu 8	200	4070
PLAYA DEL REY—		
Birch Oil Co., No. 1	1000	5810
Inland Pet. Co., No. 1	50	4420
A. T. Jergins, Troxel 1	2000	5860
Barnsdall Oil Co., Burks 10	25	4200
SANTA BARBARA MESA—		
Palisades Pet. Corp., No. 3	500	2095

KANSAS

Company, Well and Location	Initial Production Bbls.	Depth
COWLEY COUNTY—		
Mid Kansas O&G, McMinn 1, c se sw 16-31-6e	¶1½	1618
Roth & Faurot, Holt 4, nw c se 12-32-4e	190	2345
GREENWOOD COUNTY—		
Harper & Dick, Branson 1, cwl sw ne 3-25-11e	*	1875
McPHERSON COUNTY—		
Shell Petroleum Corp., Koehn 1, sw se ne 16-21-3w	1035	3408
McPherson O&G Devel., Myers 1, c ne ne 14-19-2w	¶27	2930
Lario O&G & Shell, Wiggers 1, ne c 36-19-2w	¶4½-340	2967
SEDGWICK COUNTY—		
E. B. Shawver, Robbins 2, se nw sw 21-28-1e	150	3095
Fisher & Lauck, Shaffer 2, ne se nw 30-27-2e	550	3251

NORTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
RICHLAND PARISH—		
Southern Carbon Co., M. M. McCoy B-2, 30-16-6e	¶30	2448
SABINE PARISH (Zwolle)—		
Loring Oil Co., Bowman-Hicks 14, 33-8-12	350	2495

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
CREEK COUNTY—		
C. O. Buckles, Coonrod 1, sw ne sw 3-19-9e	¶5	2713
Hulburt et al, George 1a, se c ne se 23-18-11e	5	1516
Jackson & Wise, West 3, cwl se nw 17-18-9e	8	3193
Folsom 9, cnl ne ne 9-16-11e	6	2317
R. F. Billingslea, Wayman 1a, ne c nw nw 22-15-8e	85	2874
Merkle et al, Crider 7, cel se nw 31-17-12e	*	2163
HASKELL COUNTY—		
I.T.I.O., Blake 1, sw c nw 3-10-21e	*	3007
JEFFERSON COUNTY—		
Brown, Gouin et al, Cox 1, sw nw ne 35-7s-6w	*	2528
LEFLORE COUNTY—		
Sooner Gas Co., Tucker 1, ne se nw 33-7-26e	*	1822
MUSKOGEE COUNTY—		
C. F. Finefield et al, Sango 1, ne c nw nw 9-15-18e	5	985
Braman Oil Co., Jackson 1, cel se nw 17-13-16e	¶16	2055
O'Laughlin et al, Keys 1, sw ne sw 11-11-8e	15	4002
OKLAHOMA COUNTY—		
I.T.I.O., et al, M.K.T. 2, sw se sw 35-12-3w	880	6200
Oils Inc., Thompson 1, nw c sw nw nw 2-11-3w	10320	6242
Skelly Oil, Hurt 1, sw c nw nw nw 2-11-3w	44450	6373
Tom Slick Estate, Lard 1, nw c 2-11-3w	33010	6252
Wilson 1, nw sw nw 2-11-3w	9250	6265
Wirt Franklin Pet., Wright 2, nw ne nw 2-11-3w	3260	6278
Phillips Petroleum, Higgins 1, ne se sw 10-11-3w	7540	6392
Phillips Petroleum et al, Burt 1, nw se sw 10-11-3w	6400	6523
I.T.I.O. et al, Lawton 2, se sw ne 11-11-3w	570	6550
OKMULGEE COUNTY—		
W. C. Newman, Brinton 1a, se c ne nw 14-14-13e	¶3	1852
L. C. Wheeler, Throckmorton 1a, se sw 29-15-13e	¶1	1924
Carter Oil Co., et al, Chamberlain 2, ne c nw ne 3-14-12e	*	2748
OSAGE COUNTY—		
Bacon & Voyles 9, se nw sw 30-23.9e	10	479
PAWNEE COUNTY—		
Wentz Oil Corp., Lillie 1, se sw ne 26-22-3e	*	4328
PAYNE COUNTY—		
Deep Rock Oil Corp., Harris 1, ne c sw 9-18-5e	*	3650
PITTSBURG COUNTY—		
Central States Light & Power Co., Bascom 2, sw c ne 10-7-18e	¶24	1784
POTTAWATOMIE COUNTY—		
Payne et al, Bullock 4, nw se ne 22-6-3e	2280	3562
SEMINOLE COUNTY—		
Gypsy Oil Co., Harjo 4, se nw sw 20-6-6e	65	2843
STEPHENS COUNTY—		
Geo. Pace et al, Watkins 7, nw c ne se se 21-2s-7w	400	1712
Carl Wiley, Gilmore 1a, sw c ne se ne 10-2s-5w	5	845
Carter Oil Co., et al, Duncan 1, ne c sw ne 28-2s-7w	*	1751
Pace et al, Dilley 4, nw c ne nw sw 27-2s-7w	*	1507
TULSA COUNTY—		
Bert Swift et al, Franklin 1, nw c sw sw 9-19-10e	*	2010

EASTERN STATES

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
BRADFORD FIELD—		
South Penn Oil Co., Melvin 297	2	....
Farm 4117, tr 24	2	....
Hodge-Rew 1	2	....
Healey Petroleum Co., Quintruple 50	2	....
D. T. Andrus & Co., Bingham 321, tr 1	2	....
J. O. Field, Field 1	2	....
Earl M. Fox, Fox 1	3	....
BUTLER COUNTY—		
W. S. McCullough & Son, Kaylor 2	¶1¼	....
William Pfeiffer, Burr 1	*	....
CENTER-MIDDLE FIELD—		
Buck & Duke, Duke 1	3	....
J. B. Randall, Middaugh 1	2	....
CLARION-VENANGO FIELD—		
Kaspy Oil Co., Lands 5	2	....
Lands 6	3	....
C. R. Clark & Co., Clark 1	*	....
White, Corbett & Co., Fee 15	2	....
Nupher Bros., Perry 1	¶1	....

NEW YORK

Company, Well and Location	Initial Production Bbls.	Depth
ALLEGANY COUNTY—		
J. W. Bucher Estate, Miller 1	4	....
Meridian Oil Co., Meridian 19	2	....
F. H. Stephan, Stephan 24	2	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
ROANE COUNTY—		
South Eastern Gas Co., Ferrell 3	¶¼	2174
United Fuel Gas Co., Adams 4311	¶¼	1976
Central States Gas Co., Patton 1	¶½	2016
LINCOLN COUNTY—		
United Fuel Gas Co., Horse Creek Land 4246	¶¼	....
Horse Creek Land 4275	¶¼	2487
WETZEL COUNTY—		
Lemley Oil & Gas Trust, Lemley Hrs. 1	¶¼	1608
CALHOUN COUNTY—		
Chemical Oil Co., Fling 1	¶½	2084
BOONE COUNTY—		
G. L. Cabot, Inc., Dickinson 4	¶¼	....
GILMER COUNTY—		
West Virginia Utilities Co., Bush Hrs. 2	*	1925

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
OHIO COUNTY—		
J. R. Pointer & Co., Lyons 3	¶¼	....
Oliver Jenkins & Co., Hanner 2	*	700
Petroleum Exploration Co., Edge 1	*	800
HANCOCK COUNTY—		
J. C. Ellis & Co., Richards 4	50	....
Tri-County Oil Co., Rosenblatt 1	3	....
KNOX COUNTY—		
Distill-Martin Gas Co., Ennis 1	25	800
WAYNE COUNTY—		
Pigeon Rock Oil Co., Stearns Coal & Lumber 16	4	....
CHRISTIAN COUNTY—		
Jordon & Curtis, Crofton School lot 1	¶1½	600
DAVIESS COUNTY—		
Hupp & Duff, Bender 1	*	1650
WOLFE COUNTY—		
Rev. Woodford, Alvin Drew School 1	¶¼	....
ESTILL COUNTY—		
E. S. Caywood & Co., Stewart 1	*	....

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MONROE COUNTY—		
Gold Crown Oil & Gas Co., Edington 4	¶¼	1140
Mike Stoffel, Coss 1	¶¼	1753
Shay McMullen, Cree 7	*	2054
Woodsfield Oil & Gas Co., Hanson 2	¶¼	1150
WASHINGTON COUNTY—		
George Chichester, Neuberger 2	*	200
Twin Oaks Oil Co., Lauer 10	*	312
John L. Wagner, Wagner 2	10	500
NOBLE COUNTY—		
Rich & Vorhies, McLaughlin 1	2	1428
Bern Oil & Gas Co., Spence 1	3	....

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MEDINA COUNTY—		
Edson & Son, G. W. Packard 12	7	356
A. Packard 11	6	353
Oko Oil & Gas Co., Essig 18	*	378
ASHLAND COUNTY—		
Golden Crown Oil & Gas Co., Horn 5	6	648
Robinson & Co., Easley 3	4	665
The Kemrow Co., Wiley 2	¶¾	2732

Company, Well and Location	Initial Production Bbls.	Depth
MUSKINGUM COUNTY—		
Wittmer Oil & Gas Co., Heager 1..	6	4046
Ohio Fuel Gas Co., Leasure 1.....	*	4098
ATHENS COUNTY—		
Standard Natural Gas Co., Pickett 1	¶½	1013
J. J. Walters & Co., Baird Bros. 2..	*	3255
LICKING COUNTY—		
Hope Construction & Refg. Co., Martin 2	¶¼	3938
Armbruster & Stricker, Stricker 7..	*	840
MEIGS COUNTY—		
Tyree & Hovis, Cobb 1	1	1631
BELMONT COUNTY—		
W. C. McBride, Inc., Bement-Hewell 5	¶¼	1419
LORAIN COUNTY—		
Ohio Fuel Gas Co., Vensel 1 ....¶3½		....
SUMMITT COUNTY—		
Stolz Oil & Gas Co., Greenho 3....	¶1	4027
STARK COUNTY—		
Ohio Fuel Gas Co., Belden Jr. 1..	¶1	4457
KNOX COUNTY—		
Upham Gas Co., Shira 3	*	2773

NORTHWESTERN OHIO

HARDIN COUNTY—		
Treager Hrs. Oil Co., Treager Hrs. 3	¶¼	1366
Penn Oil & Gas Co., Oats 2.....	¶½	1351
WYANDOT COUNTY—		
Jones & Coyle, Chicote 1	*	1460
LUCAS COUNTY—		
Weed Oil Co., Holloway 1.....	*	....

INDIANA

PIKE COUNTY—		
Wiser Oil Co., Carlisle 1	*	....
SULLIVAN COUNTY—		
Ellis & Thomas, Martz 2	¶¼	548

MICHIGAN

CLARE COUNTY—		
Peninsula Oil & Gas Co., Smith 1..	¶½	1420

SOUTH TEXAS

BEXAR COUNTY (Cooksey Pool)—		
Penn Oil Co.'s Cooksey 2	30	1480
DE WITT COUNTY—		
Shell Pet. Corp.'s Fritz Junker....	*	6512
DUVAL COUNTY—		
Vacuum Oil Co.'s Duval County Ranch Co. 1-A	*	3800
GONZALES COUNTY—		
United N. & S. Dev. Co.'s Wells 2	*	4962
REFUGIO COUNTY (Refugio Field)—		
Moody-Seagraves Producing Co., O'Brien 3-A 1000		6458
United Prod. Co., Mitchell 5 700		6446
SAN PATRICIO COUNTY—		
Cosden Oil Co.'s Powell 1.....	*	4705
WILSON COUNTY—		
Rycade Oil Co.'s Johnson 1	*	3280
WEBB COUNTY—		
O. W. Killam's Cuellar 2	*	2355
Mag. Pet. Co.'s Peal 1	*	3161
ZAPATA COUNTY (Muckelroy Pool)—		
Nordan and Morris' E. B. de los Santos	¶15	1354
Claypool & Nickson's Garza 1	225	1402
J. H. Winche's Alejandro Bustamante 3	¶20	1431
(Mirando Valley)—		
O. W. Killam's Fee 2 .....¶2½		1328

LOUISIANA GULF GOAST

BAYOU CHOCTAU—		
Texas Gulf Sulphur Co., Wilbert 6..	*	682
EAST HACKBERRY—		
Calcasieu Oil Co., Watkins 25....1050		2846
HOUMA—		
Chas. Paggi, Evergreen 2	*	1800
IOWA DOME—		
Vacuum Oil Co., Waite 1.....	300	5008
LOCKPORT—		
Vacuum-Gulf Co., Miller 28.....	225	3850
SOUTH CALCASIEU LAKE—		
The Texas Co., Calcasieu State 6-A	*	3794
VINTON—		
Wilson-Broach, Wilson 6.....	190	3300

TEXAS GULF COAST

EDNA—		
Jackson Co. Oil Synd., Lee 2 ..... ¶25		4105
GOLIAD COUNTY—		
United Prod. Corp., Ray 28	*	4065
BEE COUNTY—		
Moody-Seagraves Co., Welder 1 ...	*	5305
LIVE OAK COUNTY—		
Houston Oil Co., Cartwright 22....		6023
PIERCE JUNCTION—		
Kepley Oil Co., Prud. Inv. Co. 1...1200		4329
Superior Oil Co., Boyles 3 725		4305
Bob Smith et al, Parsons 1, dd....	40	4230

TEXAS PANHANDLE

CARSON COUNTY—		
Magnolia Pet. Co., S. B. Burnett 1	30	3159
North American O&G Co., E. S. Polling 1 ..... ¶28		2547
Plains Holding Co., C. Kalka 1	*	2500
GRAY COUNTY—		
Cockrell-McIlroy Oil Co., Castleberry 8	150	3286
Kewanee O&G Co., Morse 1-C	250	2700
Lyon et al, Morse 1-A	*	2852
Midgray Oil Co., McCullough 1...	25	3330
Operators Royalty & Prod. Co., Arnold 1-A	170	3295
MOORE COUNTY—		
Shamrock O&G Co., P. Sullivan 1..¶2½		3595
WHEELER COUNTY—		
Woodley et al, Sloss-Admire 1	25	2250

NORTH TEXAS

ARCHER COUNTY—		
L. T. Burns et al, Harrison 1	*	1254
W. B. Hamilton et al, Ward 1	*	1044
F. P. Hynes et al, Richardson 2...	100	1174
Kimnell et al, Snider 1	*	800
Madden & Hunt, Richardson 1	*	1194
Shappell Oil Co., Wallace 3-E	15	1794
Wallace 5-E	*	1839
E. J. Stump et al, Chiles 1	*	1780
Wilson 1-B	*	1702
GRAYSON COUNTY—		
Duncan & White, Lineville 1	*	1165
JACK COUNTY—		
Bryson O&G Co., Loving 1-B	*	4310
WILBARGER COUNTY—		
The Texas Co., Waggoner 389....	*	2201
Waggoner 391	5	1052
NORTH YOUNG COUNTY—		
B. C. Bannér et al, Belknap 1	*	715
Jeffrey 1	*	900
Brazelton Bros. et al, Belknap 1....	*	738
W. H. Clardia et al, Bagley 1	*	610
J. P. Coleman et al, Brooks 1.....	*	487
G. W. Cooper et al, Wilborn 1	*	1406
Deep Oil Dev. Co., Boob Furr 1..	*	852
F-H-E Oil Co., Finch 4-C	*	395
W. R. Fullerton et al, Belknap 1..	5	567
W. E. Hamilton et al, Finch 5....	30	670
Finch 6	150	669
Julian Oil Co. & Stripling, Larimore 12	225	713
C. J. Kleiner & Riggs, Larimore 4	*	754
Maer & Martin, Sanford 1	*	1001
J. J. Moran et al, Howard 1	20	925
Producers Tool & Supply Co. & Butler, Finch 6	130	627
Putnam Oil Co., Guthrie 1	*	712
E. R. Riggs et al, Kirkland 5	10	733
Kirkland 7	25	751
Seitz-Comegys & Seitz, Finch 1-B..	50	677
Finch 2-B	15	730
W. R. Stafford et al, Hamm 1	*	528
Stastny et al, Eichelberger (Sec. 1470) 1	*	907
SOUTH YOUNG COUNTY—		
Nash-Windfohr et al, Graham 2	110	2675

CENTRAL WEST TEXAS

ERATH COUNTY—		
Dorris et al, Whittenton 1	*	3448
Goodwin et al, Canfield 1	*	3230
PALO PINTO COUNTY—		
Lindsey et al, Robinson 3	*	1810
PARKER COUNTY—		
Waters Drilling Co., Davis 2 ..... ¶5		2236

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
CRANE COUNTY—		
Continental Oil Co., Cowden 1-C ..	300	2490
HOWARD COUNTY—		
Magnolia Pet. Co., Sarah Hyman 5..	20	3150
Kelly-Roberts 1	15	1711
JONES COUNTY—		
Shaheen Oil Co. & Duffy, King 1..	250	2007
Sam Yingling et al, L. R. Cade 1..	400	2555
MITCHELL COUNTY—		
Morrison et al, Z. F. Morrison 2..	5	3112
PECOS COUNTY—		
Stanolind O&G Co., Tippett-Dixie 7	15	430
UPTON COUNTY—		
C. C. Duffey et al, McClintic 3	500	3003
WARD COUNTY—		
Gulf Prod. Co., Hutchings 6	240	2625

CENTRAL EAST TEXAS

RUSK COUNTY—		
Deep Rock Oil Co. et al, Mayfield Alford (30.2-ac) 1 3180		3633
Foster-Jeffries & Kolp, Mayfield Alford 1 3600		3630
Haynes Drilling Co. et al, J. T. Brown 1 4000		3672
H. L. Hunt Oil Co. et al, Ashby 1..1000		3572
Lide-Taylor Oil Co., Calvin Young 1.3500		3688
Robert Oil Corp. & C. V. Welch, Ashby (2½-ac) 1 3000		3634
VAN ZANDT COUNTY—		
Humble O&R Co., R. S. Blake 8..10,000		2920
Pure Oil Co., R. A. Howell 3 7500		2959
R. H. Peters 3 1500		2957

NEW MEXICO

LEA COUNTY—		
Amerada Pet. Corp., State 1-C	125	4236
Midwest Ref. Co., State 11, Sec. 5 .....¶5-8230		4193

Texas Company's Statement Shows Loss for the Year

An estimates released by R. C. Holmes, president of The Texas Corporation, setting forth 1930 net earnings at not more than $15,000,000, compared with over $48,000,000 in 1929, presents a typical example of the degree to which the oil industry has suffered from the depression that has affected practically all lines of industry. A big item in The Texas Corporation's financial statement for 1930 will be the writing down of inventories to market prices.

Judging from other reports being gradually made public, it is evident that the industry suffered a material loss from its operations during the past year. It is noteworthy, however, that comparisons with results obtained during 1928 furnish a more normal view than can be gained by comparison with 1929. In fact, it is evident at this time that net profits for the past year will more closely compare with those of 1927, which it will be remembered was considered a rather poor year. The year 1928 showed material improvement over 1927, while 1929 proved to be the best year in the history of the industry. Profits reported for 1929 were considered rather abnormal and when compared with earnings of 1930 make that year look extremely poor.

Permits Granted for New Wells

▼ ▼ ▼

LOUISIANA

BOSSIER PARISH—La. Gas & Fuel Co., Shreveport, La., Schnitt 2, 14-17n-12w, 1980 ft s and 660 ft e of nw cor of ne¼. Harry I. Morgan, Shreveport, La., Kendricks B-12, 22-19n-11w, 1720 ft n and 2440 ft e of sw cor.

CADDO PARISH — Falcon Oil Co., Inc., Shreveport, La., Nunley 5, 29-20n-15w, 2379 ft n and 3849 ft e of sw cor of section.

CALCASIEU PARISH — Vacuum Oil Co., Houston, Texas, Bayou d'Inde State 7, 8-10s-9w, 319 ft n and 260 ft w of se cor ne¼ of nw¼.

CAMERON PARISH — Vacuum Oil Co., Houston, Texas, Cameron Meadows Ld. Co. 2, 21-14s-13w, 1900 ft w and 3120 ft s of ne cor.

CONCORDIA PARISH—Ark. La. Pipe Line Co., Shreveport, La., C. P. Alexander 1, 47-8n-9e, n 41°w 1950 ft s 44°w 1550 ft from se cor of sec.

IBERVILLE PARISH — Gulf Ref. Co., Plaquemine, La., Wilberts Myrtle Grove Pltg. Co. 8, 60-9s-11e, 160 ft s and 115 ft w of ne cor. of section.

JEFFERSON DAVIS PARISH—Mr. A. V. Peters, Lacassine, La., Smith Subdivision 1, 22-9s-5w, 1050 ft n and 180 ft e sw cor of sec.

RICHLAND PARISH—The Palmer Corp., Houston, Texas, Wolffe A-1, 35-17n-6e, 1650 ft e and 660 ft s nw cor of sw¼. The Palmer Corp., Houston, Texas, Wolffe B-1, 34-17n-6e, 1980 ft n of center of section. Southern Carbon Co., Monroe, La., C. M. Noble 1, —15n-6e, 4636 ft n and 2254 ft w from cor Secs. 7, 8, 18 and 17. Southern Carbon Co., C. M. Noble B-1, —15n-6e, 2966 ft n and 1525 ft w from cor sec 7, 8, 18 and 17.

KANSAS

COWLEY COUNTY—H. R. Allen et al, Bice 1, ne c sw 29-30-6e.

FRANKLIN COUNTY—Fields et al, Usher 1, se c 35-16-17e.

McPHERSON COUNTY—Helmerich, Payne and Shell, Koehn 1, (owd) c se 12-20-2w. Moriarty et al, Sadey 1, c sw sw 2-17-2w. W. C. McBride, Inc., Fustafson 1, c nw nw 12-19-2w. McPherson O&G Devel. and Shell, Ostlind 1, c sw nw 12-19-2w. Lario O&G and Shell, Boal 1, se c nw, 24-19-2w.

ROOKS COUNTY—Stearns, Streeter et al, Levengood 1, se sw ne 11-9-16w.

SEDGWICK COUNTY—Van Marter, Lancaster et al, Houston 1, nw c se sw nw 19-27-2e. Continental Oil Co., Nagle 1, se ne nw 19-27-2e.

STEVENS COUNTY—Texas Interstate Pipe Line Co., Greenwood 1, c ne 2-34-38w. Texas Interstate Pipe Line Co., Phillips 1, c nw 1-34-38w. Texas Interstate Pipe Line Co., Johnson 1, c nw 6-34-37w. Texas Interstate Pipe Line Co., Costley 1, c ne 32-33-38w. Texas Interstate Pipe Line et al, Patterson 1, c nw 28-33-37w. Texas Interstate Pipe Line Co., Carson 1, c ne 19-32-38w.

OKLAHOMA

CARTER COUNTY—C. L. Anderson, Eaves 8, se nw sw 24-1s-3w. Carter Oil, Franklin 3, nw ne ne 24-1s-3w.

CREEK COUNTY—Fogle et al, Strip 2, sw c ne sw 24-19-7e. Wm. McCulloch et al, Wofford 1, nw c sw se 15-19-7e. R. E. Freeman, Green 1, nw c se nw 15-19-7e. C. O. Buckles, Conner 1, ne c se nw 9-19-7e. O'Hare and Foster, Stanley 1, sw c nw 4-17-10e. F. R. Billingslea, Wayman 2a, nw c ne nw 22-15-8e. F. R. Billingslea, Wilson 1, sw c se sw 15-15-8e.

GRADY COUNTY—Meridian Gas Co., Snodgrass 1, c s½ ne ne 36-4n-8w. Badgett and Cooper, Mileur 1, nw c sw 24-4n-8w.

MUSKOGEE COUNTY — Braman Oil Co., Collins 1, c nw se 17-13-16e. Hall and Ray, Scott 1, se sw nw 30-12-19e.

For Tabulation and Comparison See Market Section

NOBLE COUNTY — Twin State Oil Co., Stewart 1, se c ne 5-20-1w.

OKFUSKEE COUNTY — Papoose Oil Co., McNac 6, (owd) cnl nw se 25-11-11e.

OKMULGEE COUNTY—J. H. Rebold Oil Co., Replogle 1, nw c ne ne 12-15-12e.

OSAGE COUNTY — Okla. Nat. Gas Co., 1823, se ne nw 3-20-12e.

SEMINOLE COUNTY—Magnolia Pet. Co., Whitney 1, nw sw se 24-5-7e. Magnolia, Reed 1, ne nw ne 26-5-7e.

STEPHENS COUNTY — Geo. Pace et al, Watkins 8, sw c se ne se 21-2s-7w. Morrison, Hightower 2, nw c ne sw ne 15-3s-5w.

TULSA COUNTY—H. W. Bowder et al, McIntosh 1, cel w½ nw nw 4-17-14e.

TEXAS

ARCHER COUNTY—W. F. Hamilton, Wichita Falls, H. L. Ward, 160, 1, 1381, TE&L sur, 150 ft from n and 750 ft from w line sec. Dean Bros., Wichita Falls, W. L. Andrews, 40, 1, B 27, G. C. Frarley suc, se corner. Petroleum Prod. Co., Wichita Falls, J. T. Richardson, 113, 1, Hart sur, 150 ft from s and e lines. Dr. C. W. Wallace, Wichita Falls, Fee, 160, E5, S 1, S. P. Ry. sur, 1468 ft from w and 1482 ft from s line sw¼.

AUSTIN COUNTY—T. H. Pratt, Brenham, F. Pomykal, 12, 4, S. M. Williams sur, 53 ft n of center of s line.

BEXAR COUNTY—Penn Oil Co., Dallas, E. H. Cooksie, 70, 2, No. 11, J. W. Riall sur, ne corner. Eckert & Son, San Antonio, J. J. Brehm, 110, 7, S 58, Bugnor sur, 320 ft s of No. 6.

BROWN COUNTY—W. D. Gully et al, Brownwood, A. F. Armstrong, 142, 2, S 1, H&GN sur, 1650 ft from n and 3800 ft from e line. E. L. Smith Oil Co., Mexia, M. F. Howell, 60, 1, No. 139, J Bird sur sur, 150 ft from n and w lines.

COLEMAN COUNTY — Prairie O&G Co., Ranger, Wagner, 1, No. 164, I. Harris sur, 1418 ft from n and 150 ft from w line. Taylor-Link Oil Co., San Angelo, G. M. Stewardson, 320, 1, S 95, E. T. Ry. sur, 200 ft from n and 2475 ft from e line. Texas Co., Wichita Falls, W. L. Edmondson, 100, 1, No. 166, D. J. Holt sur, 150 ft from n and e lines.

CHAMBERS COUNTY—Rio Bravo Oil Co., Houston, A. M. Fisher, 20, 2, Wm. Bloodgood sur, 50 ft from s and w lines.

EASTLAND COUNTY — Mays & Niver, Eastland, J. L. Brashear, 20, 3, S 6, B 6, E. T. Ry. sur, 1500 ft from w and 160 ft from n line.

FOARD COUNTY—Luther Webb, Vernon, S. F. Thompson, 65, 1, S. F. Thompson sur, 150 ft from n and e lines.

GRAY COUNTY—H. F. Wilcox O&G Co., Tulsa, Wilcox, 20, S 35, B 3, I&GN sur, 330 ft from s and e lines of nw¼. Sun Oil Co., Dallas, Coombs, 160, 2, S 35, B 3, I&GN sur, 330 ft from w and 180 ft from n lines se¼.

GUADALUPE COUNTY—Schleyer, Atherton & Armstrong, New Braunfels, A. S. Ogletree, 404, 1, R. Smith sur, 1600 ft from w and 450 ft from s line. Sun Oil Co., Dallas, C. Knobloch, 75, 13, J. W. Robinson sur, 450 ft from sw and se lines.

GOLIAD COUNTY—T. B. Slick Est., San Antonio, G. W. Allen, 295, 1, O. Marshall sur, 330 ft from n and e lines.

HARRIS COUNTY—Midway Oil & Royalty Co., Houston, J. Warren, 221, 1, S. Everett sur, 2230 ft from s and 1575 ft from w lines. Sun Oil Co., Dallas, P. L. Beck, 34, 1, HE&WT No. 5 sur, center of Blk. 5. Rio Bravo Oil Co., Houston, J. J. Settegast, B 45, 10, J. Kopman sur, sw corner.

JACKSON COUNTY—Texas Unity Oil Co., San Antonio, C. E. Hungerford, 781, 1, H. Smith sur, 4700 ft from n and 900 ft from w line.

LIBERTY COUNTY — Jno. A. Deering, Houston, Pruett, 640, 7, S 135, H&TC sur, 110 ft s and 60 ft e of No. 5.

LAVACA COUNTY — Cranfill & Reynolds, Houston, A. T. Hermes, 58, 1, Wm. Ryan No. 2 sur, 150 ft from n and e lines.

LOVING COUNTY—Grisham-Hunter Corp., Abilene, Capitol Land Synd., 640, 1, S 77, B 33, H&TC sur, 660 ft from nw and 3102 ft from ne line sec.

PONOLA COUNTY—Neff & Harper, Shreveport, G. E. Brumble, 94, 6, B. C. Jordan sur, 175 ft n of center of s line.

PALO PINTO COUNTY—Brazos River Gas Co., Mineral Wells, Edmondson, 658, 8, F. H. Gray sur, 1000 ft sw of No. 4; 9, 900 ft s of No. 8; 10, 1000 ft w of No. 9; 11, 1200 ft w of No. 10; 12, 1200 ft s of No. 11; 13, 1400 ft sw of No. 11. McLester Oil Co., Eastland, A. P. Wilbar, 2100, 3, J. Latham sur, 2500 ft from n and 5500 ft from e line.

PECOS COUNTY—Corvette Oil Corp., Fort Worth, J. H. Tippett, 40, 3, S 40, B 194, GC&SF sur, 1250 ft from w and 150 ft from s line. Dittman Oil Co., Fort Stockton, T. S. Jackson, 240, 1, S 28, B 3, H&TC sur, 330 ft from ne and nw lines of n¼.

ROBERTSON COUNTY—Streeter & Dockery, Hearne, E. G. Marsh, 7000, 1, B 17, H. Henry sur, 1500 ft from sw and 565 ft from se line.

RUSK COUNTY—Capps & Smith, Henderson, J. L. Cochran, 204, 1, J. Roth sur, 792 ft from w and 1644 ft from s line.

SHACKLEFORD COUNTY—August Hendrick, Moran, Fee, 160, 1, Sec. 4, L,A,L. sur, 450 ft from s and e lines of nw¼.

TRAVIS COUNTY—C. R. Franklin, Austin, J. Wilson, 79, 1, A. Alexander sur, 160 ft from n and w lines.

UPTON COUNTY — Gulf Prod. Co., Fort Worth, J. T. McElroy, 640, 91, S 195, B F, CCSD&RGNG sur, 1650 ft from n and 330 ft from w line.

VAN ZANDT COUNTY — Humble Oil & Refg. Co., Houston, R. S. Blake, 201, 8, J. Walling sur, 1230 ft from n and 400 ft from e line. Pure Oil Co., Fort Worth, C. H. Cannon, 29, 4, J. Walling sur, 203 ft from n and 200 ft from e line. I. D. Miller, 60, 2, J. Walling sur, 250 ft from s and w lines. O. L. Swain, 40, 3, J. Walling sur, 250 ft from n and e lines.

WICHITA COUNTY—Culbertson, Wichita Falls, J. Waggoner, 465, 70, S 13, BS&F sur, 1876 ft from n and 480 ft from e line. Texas Co., Wichita Falls, Waggoner A, 395, S 13, HT&B sur, 1215 ft from n and 990 ft from w line of sec.

WASHINGTON COUNTY — Sun Oil Co., Beaumont, F. C. Marcus, 10, 2, J. F. Perry sur, 300 ft from nw and 203 ft from ne line.

WHARTON COUNTY—H. H. Givan, Wharton, A. G. Hudgins, 59, 2, I. B. Phillips sur, nw corner. Rose Texas Oil Co., Rosenberg, I. A. Harrison, 66, 2, S. F. Austin sur, 600 ft from s and 52 ft from w line.

WILBARGER COUNTY—Texas Co., Wichita Falls, Waggoner, 393, S 6, B 13, H&TC sur, 1650 ft from n and 444 ft from w line of sec; 392, S 5, B 13, H&TC sur, 330 ft from n and w lines of sec.

YOUNG COUNTY — W. F. Hamilton, Wichita Falls, N. C. Finch, 40, 7, No. 40 TE&L sur, 450 ft from w and 150 ft from s line n½ sw¼, 6, 150 ft from n and w lines. Martin & Maer, Wichita Falls, G. H. Sanford, 160, 1, 215 TE&L sur, 150 ft from s and w lines of e½ nw¼. W. R. Stanford, Graham, Harm, 50, 1, 1928, TE&L sur, 150 ft from s and e lines of nw¼ of nw¼. King Royalty Co., Wichita Falls, J. Graham, 40, 12, 2249 TE&L sur, 2000 ft from e and 440 ft from n line. Young Bros. & Alexander & Terrell, Fort Worth, Larimore, 80, 5, 253 TE&L sur, 150 ft e of No. 4. E. R. Riggs, Graham, J. M. Kirkland, 40, 7, 2249 TE&L sur, 150 ft from n and 920 ft from w line of sec. Putnam Oil Co. & Panhandle Ref. Co., Cisco, Guthrie, 160, 1, 280 TE&L sur, 933 ft from n and 1316 ft from w line of sec. J. H. Kleiner, Cisco, Belkanp, 11, 1, 22 TE&L sur, 150 ft from s and 750 ft from e line of sec;

Wildcat Reports From All Sections

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
CROCKETT COUNTY—		
J. W. Dieringer et al, Barnscorew 1	*	2505
PECOS COUNTY—		
Sides & Cloyd, Scharff-Blackman 1	*	3405

ANDREWS COUNTY—Deep Dock Oil Co. et al's Kuykendall 1, elev 3217 ft, top anhydrite 1678 ft, salt 1720-2810 ft, top lime 4045 ft, testing 600 ft oih at 4240-85 ft.

BREWSTER COUNTY—Trans-Pecos O&G Co.'s Jones 1, elev 3073 ft, ur 2660 ft.

COCHRAN COUNTY — Continental Oil Co.'s Slaughter 1-B, dr red beds 1990 ft. Penn Oil Co. & Kiskadden 1, Slaughter 1, lcn.

COKE COUNTY—Reid-Hitchins & Stanolind O&G Co.'s Duncan 1, dk.

CONCHO COUNTY—W. C. Beesley et al's Waring 1, sp and sd. A. W. Turner-Cromwell & Wesner's Brosig 1, set cas 1520 ft.

CRANE COUNTY—Cranfill Bros. Oil Co. et al's J. T. Muir 1, elev 2499 ft, top salt 485 ft, top white lime 2330 ft, dr lime 4255 ft. Cranfill & Gulf Prod. Co.'s J. B. Tubb 1, elev 2526 ft, salt 505-1400 ft, top brown lime 1410 ft, top white lime 2455 ft, top gray lime 4645-4700 ft, flowing 60 bbls oil and 120 bbls water with 2,000,000 ft gas daily. C. C. Duffey et al's Cowden 1, rig.

CROCKETT COUNTY — Taylor Link Oil Co.'s M. Bullock 1, top salt 1090 ft, sd 2300 ft.

CULBERSON COUNTY—Cranfill Bros. Oil Co. et al's Seay 1, sd 245 ft. W. L. Kornrumpf et al's W. D. Garren 1, dr 1230 ft.

DAWSON COUNTY—R. A. Albaugh et al's Robinson 1, spd and sd.

ECTOR COUNTY—Galt-Brown Co. & Penn Oil Co. Unit Plan's Cowden 1, dr 180 ft. Southern Crude Oil Pur. Co.'s Cowden 2, elev 3065 ft, top anhydrite 1782 ft, top salt 1872 ft, dr 2935 ft. H. F. Wurtz et al's Ibbetson 1, elev 2840 ft, top salt 865 ft, sd 3280 ft.

EDWARDS COUNTY—Phillips Pet. Co.'s Holman 2, dr 7530 ft.

EL PASO COUNTY—Tri-State Oil Co.'s Louis Bobadella 1, set 18-inch cas 125 ft.

FISHER COUNTY — Condor Pet. Co. & Humble O&R Co.'s Wilson 1, elev 1879 ft, top lime 3181 ft, testing 2300 ft oih 3188 ft. Roeser-Pendleton, Inc. & Amerada's Gribble 1, dr 760 ft; Littleton 1, dr 2720 ft. The Texas Co.'s Stephens 2-A, elev 1936 ft, swab 22½ bbls oil 24 hrs at 3227-61 ft.

GARZA COUNTY—Penny & Porsey's Justice 1, dk.

GAINES COUNTY—Texas Consolidated Oil Co. & T. P. Coal & Oil Co.'s E. H. Jones 1, elev 3636 ft, dr 1095 ft.

TOM GREEN COUNTY—Cromwell et al's Norsworthy 1, sd 765 ft. Pratt & Hancock's Lewis 2, sd 200 ft.

HOWARD COUNTY—Continental Oil Co.'s Eason 2, stdz 2176 ft. Greene Prod. Co.'s L. C. Denman 1, sp and sd.

IRION COUNTY—Chas. Denny & W. R. Andrews' Tankersley 1, dr 915 ft. Stanolind O&G Co.'s W. H. Williams 1, dr 1085 ft. Straughn et al's Tankersley 1, elev 2306 ft, sd 1473 ft.

JONES COUNTY—Bonds-Trout-C. C. Julian & Gulf Prod. Co.'s M. J. Williams 1, ur 2175 ft. J. B. Jameson et al's King 1, fsh 1550 ft. J. L. Hart et al's Roberts 1, sd 1000 ft. Shaheen Oil Co. & Union Oil Co.'s King 1, dr 1225 ft. Sam Yingling et al's J. A. Williams 1, rig.

LOVING COUNTY—The California Co.'s J. G. Allen 2, dr 450 ft; Reagan-McIlvain 7, top salt 780 ft, dr 3710 ft. Carl Cromwell & Atlantic Oil Prod. Co.'s Russell 1, top salt 750 ft, dr 3810 ft. Folbre & Evans' D. P. Dean 1, rig. Grisham-Hunter Corp.'s Dean 1, rig. Henshaw et al's Reagan 2, rig. Pete Hoffman et al's Ramsey 1, rig; Ramsey 2, lcn. Lewis & Slagel Drlg. Co.'s Cartwright-Henderson 1, elev 2901 ft, top salt 585 ft, dr 1815 ft. C. H. Lockhart et al's Hubbard 1, dr 720 ft. Lockhart & Co.'s Allen 4, salt 724-3985 ft, sd 4016 ft. Miller-Burge & Healy's Chapman 1, top salt 750 ft, top Delaware 4285 ft, set 5 3/16-in line and flow 30 bbls oil daily 4356 ft. H. W. Martin et al's Wheat-Russell 1, elev 2679 ft, top salt 750 ft, tested 2300 ft oil in hole at 2345-55 ft, sd 2420 ft. Rush-Anderson & Moor's Wheat 1, dk. West Texas Pet. Corp. (Eppenauer's) J. G. Allen 2, dr 305 ft; Salisbury 1, rig. F. S. Tennant et al's Roy Martin 1, lcn.

MENARD COUNTY—L. G. Priest et al's Sorrell 1, elev 2279 ft, fsh ur 2695 ft.

PECOS COUNTY—J. R. Bell et al's Eaton-Sun 1, top salt 910 ft, dr 1505 ft. Bell & Humble's Scharff-Blackman 1, sd 1624 ft. Charlesworth-Messenger Oil Co.'s Butz 1, elev 2519 ft, sd making gas 1282.90 ft. E. L. Chapman et al's Streety 1, elev 2563 ft, sd 2210 ft. C. L. Dittman Drlg. Co. et al's Eaton 2, lcn; Eaton (Sec. 37) 1, elev 2433 ft, top salt 945 ft, sd with 1000 ft oih 1618-34 ft; Jackson 1, machine. Humble O&R Co.'s H. L. Kokernot 1, elev 3593 ft, top salt 2713 ft, cem whipstock at 5150 ft, td 6170 ft. Magnolia Pet. Co.'s Eaton 1, dr 650 ft. B. C. Mann et al's Scharff-Blackman 1, sd in sul water 2098 ft. McCarty Oil Co.'s Gray 3, sd 1437 ft. J. R. Miller et al's Bennett 1, sd in water 2105 ft. J. D. O'Mara et al's Bennett 1, elev 2508 ft, sd 1230 ft. Penn Oil Co. et al's J. B. Alvis 1, elev 3493 ft, top Rustler lime 1385 ft, ur in bad hole 1550 ft. O. J. Perren et al's Eaton 2, elev 2437 ft, fsh and making 5,000,000 ft gas 1760-65 ft. Pure Oil Co.'s Harrison 1, elev 3495 ft, top Delaware 4265 ft, sd 5000 ft. Riser & White's Riser 1, sd 500 ft. Eric Schelling & Slaughter's Yates 1, sd 340 ft. Southern Crude Oil Pur. Co.'s Scharff-Blackman 1, top salt 865 ft, bailing 1 bbl oil and 2 bbls water at 2179-85 ft, dr hard lime 2375 ft. Williams & Moran's Heiner-State 1, elev 2528 ft, dr 1720 ft. Tex-Mex Pet. Corp. (was L. B. Lancaster's) Eaton-Pure 1, dr 455 ft.

REAGAN COUNTY — Big Lake Oil Co.'s University 179, elev 2691 ft, sd 4003 ft; University 6-C, lcn.

REEVES COUNTY—The California Co.'s Kloh 2, 13⅜-inch cas froze 1127 ft.

RUNNELS COUNTY—Chas. Dutton et al's G. W. Dean 1, fsh 2315 ft.

SCHLEICHER COUNTY — Eastland Oil Co. Unit Plan's Tisdale 1, dr 655 ft. Munger-Wilson Oil Co.'s Pagel 1, elev 2270 ft, sd 5053 ft. Paul Teas & Walter Gant's Allison 1, elev 2311 ft, dr 4475 ft. J. D. Wesner et al's Ratcliff 1, elev 2408 ft, ur 1060 ft.

SCURRY COUNTY — R. B. Pender O&G Co.'s Davis 1, elev 2208 ft, top salt 445 ft, sd 5000 ft. Scurry County Oil Exchange's Earnest 1, lcn. Seifert & Dibble's Blackburn 1, top salt 720 ft, sd 2315 ft.

STERLING COUNTY—W. C. Beesley et al's W. L. Foster 1-A, spd and sd.

TAYLOR COUNTY — Adams-Ferguson & Hobbs' Lowe 3, elev 1918 ft, dr 1210 ft. Geo. Goodrum et al's L. Ackers 1, lcn. J. B. Jameson et al's Webb 1, elev 1905 ft, sd 6251 ft. Sanger et al's Abilene City fee 1, dr 2605 ft.

TERRELL COUNTY—Big Bend Oil Corp. et al's Bassett 1, elev 2396 ft, sd 2670 ft. Mid-Kansas O&G Co.'s Goode 1, elev 2405 ft, sd in black shale 5530 ft.

VAL VERDE COUNTY—O. O. Owens et al's Mills 1, elev 2130 ft, cem 2 strings tools in hole, td 6780 ft. Phantom Oil Co.'s Ingram 1, temp abn 3035 ft.

UPTON COUNTY—Bennett Oil Co. & P. H. Williams' Shirk 1-A, rig. C. F. Corzelius et al's Shirk-Tidal 1, top salt 1015 ft, sd 2400 ft. Gulf's McElroy 91, rig. Humble O&R Co.'s Ricker 15, top salt 525 ft, top brown lime 1980 ft, top white lime 2015 ft, testing with 2100 ft oih at 2177-95 ft. Penn Oil Co. & Shell Pet. Corp.'s Halamacek 1, elev 2806 ft, top anhydrite 1535 ft, top salt 1568 ft, dr 3735 ft. TP Coal & Oil Co.'s King 1, top salt 1150 ft, top lime 2630 ft, dr 2740 ft.

WARD COUNTY—A. Bradford et al's B. Carson 1, machine. California Co. & Atlantic Oil Prod. Co.'s Allen 1, top salt 2296 ft, top lime 2344 ft, co 2710 ft; A. B. Gordon 1, rig. Empire Gas & Fuel Co.'s Sealy 1, elev 2654 ft, top salt 1175 ft, top lime 2320 ft, dr by tools and making 25 bbls oil with 3,000,000 ft gas at 2582-2610 ft. Gulf Prod. Co.'s Hutchings 6, elev 2643 ft, top salt 1155 ft, top lime 2300 ft, comp. flowing 240 bbls oil 2585-2625 ft; O'Brien 16, top salt 1195 ft, dr 2200 ft. J. G. Kugle et al's Chas. Wallis 1, top salt 1835 ft, dr 1955 ft. Magnolia Pet. Co.'s Atlantic-Sealy 1, 12½-in cas froze 802 ft. R. F. Owen et al's Johnson 1, elev 2499 ft, dr 1905 ft. Prairie O&G Co.'s Hill 1, dr 975 ft. Rickford & Smith's Johnson 1, elev 2441 ft, top salt 798 ft, sd 1550 ft. Paul Ryan et al's Allen 1, machine. Shipley Oil Corp.'s Hayzlett 5, top salt 725 ft, sd 760 ft; Monroe 1-A, elev 2655 ft, top salt 2485 ft, fsh 3780 ft.

WINKLER COUNTY—Magnolia Pet. Co.'s M. J. Bashara 1, elev 2884 ft, top anhydrite 829 ft, top salt 996 ft, top lime 2317 ft, dr 2557 ft; J. B. Walton 1, elev 2931 ft, dr 1560 ft.

ABBREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in.—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr — straight-reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; wosr—waiting on standard rig.

2, 300 ft e of No. 1; 3, 150 ft from s and e lines of sec; 4, 300 ft w of No. 1; 5, 150 ft from s and w lines. F H E Oil Co. & Kimbell & Anderson, Fort Worth, N. Finch, 40, C4, 39 TE&L sur, 150 ft from n and e lines of se¼. Seitz, Comegys & Seitz, Wichita Falls, W. T. Finch, 40, 2, 40, TE&L sur, 150 ft from n and 450 ft from w line. Ben Banner, Graham S. R. Jeffery, 80, 1, 47 TE&L sur, 450 ft from n and 150 ft from w line of se¼.

ZAPATA COUNTY—National Oil Co., San Antonio, Dapron, 1, Portion 6, 617 ft from nw and 96 ft from ne line, Blk. 97. S. R. C. Oil Corp., San Antonio, I. Trevino, 40, A12, S 66, 550 ft from n and 150 ft from w line Blk. 2. A. R. McLenunan, Laredo, Cuellar, 208, 1, Sec. 277, 1576 ft from w and 150 ft from s line. Claypool & Nixon, Roswell, N. M., M. Garza, 80, 1, B 11, Comitas sur, 150 ft from ne and 284 ft from se line.

CALIFORNIA

BELRIDGE—Belridge Oil Co., No. 64-27, 27-27-20.

KERN COUNTY—Chanslor-Canfield Midway Oil Co., Villard A-1, 31-35-28.

TEXAS GULF COAST

AUSTIN COUNTY — Arkansas Nat. Gas Co.'s Machmehl 1, 2 mi n of Bellville, dr 3940 ft shale. O'Hara et al's Schrader 1, Hacienda survey, dr 3290 ft shale. Empire's Kunze 1, San Felipe, dr 5660 ft lime.

BRAZORIA COUNTY—Thos. Faust et al's Fee 6, 2 mi s Nash Dome, dr 6070 ft shale. Rycade & Amerada's Seaburn 2, Stratton Ridge, dr 6020 ft shale. Freeport Sulphur Co.'s Fee 2001, Bryan Mound, dr 4880 ft shale. The Texas Co.'s Ewing 1, Manvel, sdtr 7180 ft. Layne et al's Wisdom 7-A, dr 3100 ft shale. Mills Bennetts' Randon 2, Allen Dome, dr 3300

ft lime; Reese 2, Allen, dr 2930 ft anhydrite; Allen 3, dr 1390 ft lime. United Oil Synd.'s Speer 1, 3 mi n Danbury, dr 750 ft shale.

BURLESON COUNTY — Mid South Oil Co.'s Duckworth 1, 2 mi e Clay Station, dr 2600 ft shale.

CHAMBERS COUNTY—Pure's Lost Lake 5, Lost Lake, sd 5847 ft. Shell's Herff 2, Moss Bluff, dr 6620 ft shale. Chicago Oil Corp.'s Lawrence 1, 10 mi s Barbers Hill, sd 5020 ft.

FORT BEND COUNTY—Gulf's Davis 61, Big Creek, dr 3520 ft shale. Long Point Oil Co.'s Fee 1, Long Point, sd 630 ft.

GRIMES COUNTY—Wainwright-West Oils, Ltd. & Triangle Corp. et al's Templeman 1, 6 mi s Navasota, rm. 3680 ft.

HARDIN COUNTY—D. O. Speight's Gidrey 1, 4 mi s Batson, dr 3350 ft gumbo. The Texas Co.'s Fee 307, prep to make test 3000 ft.

HARRIS COUNTY—Humble's Minnetex 4, Mykawa, dr 5530 ft shale; Gehring 1, Mykawa, swabbing 4870 ft. Cypress Oil & Dev. Co.'s Kitzman 2, 2 mi n Cypress, sd 4430 ft. Gulf States Oil Co.'s Augsperger 1, 8 mi n Court House, sd 3930 ft. Midway Oil & Royalty Co.'s Warren 1, Hockley, lcn. Gulf's Manchester 2, Pierce Junction, dr 3930 ft lime.

JACKSON COUNTY — Warner-Quinlan's Hungerford 1, 1 mi n Edna, dr 2350 ft lime.

JEFFERSON COUNTY—The Texas Co.'s Pipkin 4, Big Hill, dr 3470 ft rock. Humble's McFadden 1, dr 3000 ft shale. Keith et al's Reed-Hankamer 1, dr 2830 ft gumbo.

LAVACA COUNTY — Cranfill-Reynolds' Hermes 1, sd 50 ft. J. Kendricks et al's Reeves 1, Heuser sur, dr 4090 ft lime.

LIBERTY COUNTY—Hamm et al's Harvard 1, Davis Hill, dr 1030 ft lime. J. R. Ingram's Hornbeck 1, 2 mi s Cleveland, dr 1750 ft sand. Harrison Oil Co.'s Quintette 4, North Dayton, dr 5350 ft shale. Gulf's Ezzell 1, Hankamer, dr 6590 ft sand. Gulf's McFadden 3, Moss Bluff, dr 4220 ft sand. Humble's Sterling 7, Moss Bluff dr 2440 ft shale; Breeden 2, Moss Bluff, moving in machinery. Texas Gulf Sulphur Co.'s Carter 1, Moss Bluff, lcn.

MATAGORDA COUNTY—Empire's Booker 1, Citrus Grove, sdtr 5590 ft.

ORANGE COUNTY—Crews Oil Co.'s Mansfield 1, lcn. Gulf's Miller-Vidor 1, 2 mi n Vidor, dr 2520 ft gumbo.

SAN JACINTO COUNTY—E. P. Edwards et al's Bennett 1, dr 50 ft clay.

VICTORIA COUNTY — The Texas Co.'s McFadden 2, Bloomington, dk.

WASHINGTON COUNTY—Sun's Janner 4, Clay Creek, dr 4520 ft salt; Freeman 1, Clay Creek, plugged back to 1900 ft, wcc.

WHARTON COUNTY — Shibe & Gray's Brown 1, 4 mi sw El Campo, fsh 2815 ft.

CENTRAL EAST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
ANDERSON COUNTY—		
Frost Oil Co., G. A. Botting 1....	* 3858	
GREGG COUNTY—		
Moncrief-Farrell & Arkansas Fuel Oil Co., Lathrop 1 .....¶6-7700	3587	

ANDERSON COUNTY—Frost Oil Co.'s G. A. Botting 1, A. B. Patton sur, elev 354 ft, Pecan chalk 3934-3158 ft, Austin chalk 3632-3710 ft, dry and abn 3858 ft.

BOWIE COUNTY—Lee Timberlake et al's Tidwell 2, L. M. Rice sur, elev 290 ft, sd 720 ft. Maud Redwater Oil Co.'s Merritt 1, Y. S. McKinney sur, sd 635 ft.

CASS COUNTY—Wesley Morse et al's Henderson 1, C. C. Bailey sur, dk. Olds-Smith et al's Joe Athenay 1, J. C. Byers sur, sd 600 ft. John C. Rogers et al's W. Q. Henderson 1, Wm. Davis sur, sd 365 ft; Lanier 1, K. A. Welborn sur, elev 366 ft, top Annona chalk 2144 ft, sd 2275 ft.

CHEROKEE COUNTY—Arcadia Ref. Co. et al's Jones 1, Edson Gee sur, elev 481 ft, top Pecan chalk 2978 or 2994 to 3370 ft, dr 3765 ft. Roy G. Baker et al's M. M. Tomme (40-ac) 1, Wm. Geaorge sur, cem 10-inch cas 180 ft, dr 850 ft. D. Harold Byrd et al's Fariss 1, elev 215 ft, dr 1720 ft. McDonald Bros. et al's W. A. Newton 1, Thos. Quevedo sur, rig.

DELTA COUNTY—Delta Dev. Co.'s Hays et al 2, dr 1550 ft. Everette Drlg. Co. et al's M. Sansing (40-ac) 1, J. B. Craig sur, sd 2130 ft. D. S. Hoad et al's J. J. Baker 1, T. P. Eddin sur, sd 1550 ft. Worthington & Stedham's W. H. Dejernett 1, E. Chick sur, show oil and gas 1578-85 ft.

ELLIS COUNTY — Foster & Richardson's Moise-Cerf 1, sd 2187 ft. E. M. Rogers et al's J. L. Winn 1, O. Wheeler sur, sd 1360 ft.

FRANKLIN COUNTY—Harper-Byers Oil Co.'s A. J. Laws 1, D. G. Rogers sur, dr 2150 ft.

GREGG COUNTY—D. H. Byrd-Gulf Prod. Co. et al's Camorras Bros. 1, rig; Frank Elder 1, Wm. J. McCurry sur, rig. W. L. Brandon et al's J. F. Richards 1, Mary Van Winkle sur, sp and sd. E. E. Eslick et al's Spring Hill Church 1, Dolores Sanches sur, dk; J. Castleberry 1, dk. Frank Foster et al's Jasper Rodden 1, John Ruddle sur, rig. Mrs. Mamie Hammonds et al's J. M. Hamby 1, John Lout sur, elev 376 ft, top Saratoga chalk 2361 ft, top Pecan chalk 2508 to 2886 or 2902 ft, dr 2940 ft. Bell & Graddy's Daniels-M. George 1, Mary Van Winkle sur, lcn.

HENDERSON COUNTY—H. B. Ashburn et al's T. E. Terry 1, Arron York sur, elev 397 ft, Pecan chalk 2810-3015 ft, top Austin chalk 3983 ft, sd 3993 ft. E. L. Chapman et al's Cade Bros. 3, J. B. Dorsey sur, Pecan chalk 3073-3267 ft, top Austin chalk 4385 ft, dr 4410 ft.

LAMAR COUNTY—K. O. Bundy-Everett & Allen's G. S. Legate 1, J. V. Cheney sur, rig.

LEON COUNTY—Sun Oil Co.'s Ella Grayson 1, Marquette Blk., coring 320 ft.

LIMESTONE COUNTY—R. H. Dearing & Sons (was Imperator Oil Corp.'s) B. B. Barron 1, E. Mabry sur, dr 2000 ft. Geo. B. McCamey et al's Kosse Townsite 1-A, sd 1515 ft. E. E. O'Byrne & E. L. Chapman's S. W. Hancock 1, H. York sur, sd 1165 ft. Ben Segal & Earnest Hundahl's A. E. Smith 1, M. N. Miller sur, top Pecan chalk 1579 ft, top Austin chalk 2203 ft, dr 2800 ft. A. M. Yost-Schuebert & Bill Reiter's S. J. Fenner 1, H. C. Hoskins sur, sd 3200 ft.

NAVARRO COUNTY—L. G. Priest et al's H. Albritton 1, Bazette area, top Austin chalk 2276 ft, top Austin chalk 2734 ft, dr 2910 ft.

RED RIVER COUNTY—D. M. Buffington et al's L. H. Moore 1, D. Cornelius sur, Annona chalk 3 to 241 ft, red beds 1383-1453 ft, sd 1620 ft. E. L. Chapman et al's Morris-Guest 1, S. Larkin sur, sd 1505 ft. Droppleman & Bundy's J. W. Cunningham 1, S. V. Chi sur, sd 2290 ft. Echols & Peters' E. Howison 1, W. Humphries sur, dk. Everett & Allen's W. F. Bryan 1, P. Vaughan sur, lcn. Johnson Pet. Co.'s Style 1, Dean sur, sd 2235 ft.

ROCKWALL COUNTY—A. W. Walker & Son et al's M. S. Jones 1, S. Simmons sur, dr 350 ft; Paul Snow 1, J. E. Sherwood sur, dr 165 ft.

RUSK COUNTY—J. W. Akin-J. P. Rayzor & R. H. Dearing (Ventura Oil Co.'s) Ashby (2½-ac) 1, elev 447 ft, top Pecan chalk 2610-2991 ft, dr 3315 ft. J. Alford et al's Wallace-Thrash 1, dk. Geo. S. Anderson et al's Frederick (20-ac) 1, top Pecan chalk 2507 to 3015 ft, dr 3300 ft; Frederick 2, lcn. W. D. Anderson-Williamson County Properties' Thrash (17½-ac) 1, M. J. Prue sur, elev 418 ft, rig. Babcock Bros. & Ann B. Gordon Oil Co.'s Camp (4-ac) 1 and 2, lcns. Ball et al's Bradford (24-ac excess) 1, dr 2460 ft. Nick Barbare et al's J. T. Brown 1, M. J. Prue sur, dr 385 ft. G. W. Basom et al's Neal Cooper (10-ac) 1, lcn. Harry W. Bleam et al's Jarnigan (17-ac) 1, J. C. Snow sur, rig. Burgoyne Bros. et al's J. A. Alexander (93-ac) 1, T. Jones sur, elev 499 ft, Pecan chalk 2478 to 2877 ft, top Austin chalk 3442 ft, coring 3630 ft. Joe Burnham & Lloyd Oil Corp.'s Nicely-Crystal Farms 1, Thos. Obar sur, dr 1450 ft. Burton Drlg. Co. (Sabine Synd.'s) E. B. S. Florey (50-ac) 1, Peter Holmes sur, elev 354 ft, dr 1610 ft. Capps & Smith's J. L. Cochran 1, J. Roth sur, elev 386 ft, dr 1630 ft. E. L. Chapman et al's A. P. Finney (20-ac) 1, elev 427 ft, dk. Consolidated Oil Co.-W. B. Hamilton et al's Camp (30-ac) 1, Pecan chalk 2593-3030 ft, Austin chalk 3452-3578 ft, cem cas 3607 ft, oil sand 3614-19 ft. Cordova Union Oil Corp.-Duffey & Nelson's C. O. Christian 1, R. E. Winn sur, rig. J. F. Crabtree-Bill Rowe & Cade Johnson's Ashby (2½-ac) 1, elev 449 ft, sd 600 ft. Deep Rock Oil Co. et al's Mayfield Alford (30.2-ac) 1, elev 421 ft, Pecan chalk 2600-2980 ft; Austin chalk 3452-3560 ft, comp 3180 bbls at 3613-33 ft. Dan Dillon et al's Frederick (19½-ac) 1, lcn. Geo. Fagg et al's Camp (5-ac) 1, rig. Federated Oil Co.'s Ben Laird (65-ac) 1, I. Ruddle sur, dr 2510 ft; Mayfield Alford (16-ac) 1, elev 418 ft, top Pecan chalk 2615 ft, dr 3135 ft. Frank Foster-Jeffries et al's Mayfield Alford (9-ac) 1, elev 418 ft, Pecan chalk 2598-3004 ft, Austin chalk 3429-3529 ft, comp. 1844 bbls 11 hrs, td 3630 ft. Frank Foster-Deep Rock Oil Co. & Wainwright-West Oils, Ltd.'s, Camp (7½-ac) 1, top Pecan chalk 2590 ft, dr 3185 ft. Haynes Drlg. Co.'s J. T. Brown (40-ac) 1, M. J. Prue sur, elev 486 ft, Pecan chalk 2740-3075 ft. Austin chalk 3556-3606 ft, tested 2458 bbls 17 hrs at 3660-3673 ft. H. L. Hunt Oil Co. et al's Ashby 2, Pecan chalk 2600-3063 ft, cem 3580 ft; Ashby 3, rig; Ashby 4, rig; Bradford 2, elev 394 ft, Pecan chalk 2560-2950 ft, cem 3511 ft; Mayfield Alford 1, rig. Humble O&R Co.'s L. D. Crim 2, rig; Crim 3, rig; Crim 4, rig; Laird 1, rig. C. M. Joiner et al (E. R. Tennant, receiver's) Bradford 1, Lct No. 1, dr 2610 ft. E. M. Jones & Houston Oil Co.'s W. R. Crim (10-ac) 1, Robt. Winn sur, elev

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440 ft, top Pecan chalk 2631 ft, dr 2780 ft. Karona Oil Co.'s J. M. Peterson (15-ac) 1, Robt. Winn sur, elev 360 ft, dr 375 ft. Knox et al's E. Melton 1, dk Laster Oil Co.'s Bradford 1, Lot No. 14, elev 387 ft, top Pecan chalk 2545 ft, dr 3520 ft Lewis & Goodman's O. C. Jones (15-ac) 1, elev 507 ft, Pecan chalk 2420-2955 ft, top Austin chalk 3497 ft, fsh 3630 ft. Lide-Taylor Oil Co.'s Calvin Young (40-ac) 1, M. J. Prue sur, elev 475 ft, Pecan chalk 3714-3086 ft, Austin chalk 3525-3603 ft, cored oil sand 3677-88 ft, flowed 1370 bbls 10 hrs. Luling O&G Co.'s H. Porter 1, Robt. W. Smith sur, cem sur cas. Moss & Tucker's Hamp Matthews 1, elev 387 ft, co 2338 ft. Moss & Urschel's Mayfield Alford 1, dr 2261 ft. John Olvey & Sample's W. R. Crim (20-ac) 1, top Pecan 2645 ft, dr 2715 ft. Patton & Harrell's Frederick 1, lcn. Pearl Oil Co. (Vitek's) G. W. Eaton 1, F. Cordova sur, rig. Pilot Oil Co. (Cranfill-Germany & Mitchell's) A. P. Finney (40-ac) 1, rig. Robert Oil Corp. & C. V. Welch's Ashby (2½-ac) 1, comp. flowing 2500 bbls 22 hrd 3598-3627 ft, td 3634 ft. Rusco Oil Co.'s Bradford 1, Lot No. 13, elev 397 ft, Pecan chalk 2520-2945 ft, Austin chalk 3354-3465 ft, testing sand 3626 ft. Rusk County Oil Co. (was Files-O'Mara-Meredith's) Robertson (14-ac) 1, fsh 1205 ft. Nat Sadler et al's Ed. Sparks 1, Abner Nail sur, sp and sd. Bert Shaw Oil Co. & C. Andrade's Ashby (2½-ac) 1, testing sand 3609-11 ft. Henry Smith et al's Peterson 1, R. E. Winn sur, sp and sd. Tidal Oil Co. & Wm. Johnson's Lum Taliaferro 1, sp and sd. Universal O&G Mining Co.'s Brown 1, sp and sd. Wainwright-West Oils, Ltd.'s Moore 1, materials. Warner-Quinlan Co.'s Camp 1, cem cas 211 ft. Jack Younger & Hill's Bradford (5-ac) 1, dk. Roy I. Carter et al's Mayfield Alford 1, rig. DeMontrand et al's Birdwell 1, lcn. Elzy Drlg. Co.'s Camp 1, rig. Frank Foster-Deep Rock et al's Ashby 2, rig. L. P. Hammond et al's Camp 1, dk.

SMITH COUNTY — T. B. Slick & J. G. Kugle, Jr., et al's M. Freeman 1, A. I. Lagrone sur, elev 498 ft, Pecan chalk 2080-3275 ft, co in Austin chalk 3623 ft.

UPSHUR COUNTY — McGinley Corp.'s Reeves-Truitt 1, L. B. Brown sur, elev 358 ft, top Navarro 1680 ft, sd 2043 ft.

VAN ZANDT COUNTY—J. C. Fore & Geo. L. Pace et al's P. S. Hand 1, Wm. Sherman sur, elev 564 ft, Pecan chalk 2420-44 ft, Austin chalk 3452-3893 ft, sd 5080 ft. Kelly O&G Co.'s Lunsford 1, J. Conner sur, sd 2300 ft. Neil McElroy et al's R. W. Murphy 1, H. Bailey sur, sp and sd. Texas Chief Oil & Roy. Corp.'s Foster 2, F. Montgomery sur, materials. Van Oil Assn.'s J. C. Tankersley 1, L. Landers sur, sd 2000 ft. Wilson et al's Stribling 1, Phillip Mason sur, dr 1570 ft. Wittmer O&G Properties et al's R. W. Beggs 1, H. W. Raquet sur, elev 560 ft, dr 2085 ft.

VAN FIELD—Helms et al's C. E. Bogue 1, M. University sur, elev 461 ft, sd 2843 ft. Humble O&R Co.'s Blake 9, rig. Pure Oil Co.'s N. R. Blake 1, cem cas 2851 ft; C. H. Cannon 4, cem cas 2670 ft; A. D. Clark (2-ac) 8, Austin chalk 2264-2471 ft, dr 2870 ft; Davis 1, dk; D. O. Mayo 2, Austin chalk 2472-2670 ft, dr 2830 ft; I. D. Miller 2, dr 1615 ft; L. A. Smith 2, cem cas 2423 ft; F. B. Smith 3, dr 2555 ft; G. C. Stewart (50-ac) 3, top Austin chalk 2345 ft, dr sand 2812 ft; W. F. Swain (20-ac) 4, dk; O. L. Swain (80-ac) 3, top Pecan chalk 1675 ft, coring 2588 ft; Wells-Tunnell 2, base Austin chalk 2427 ft, dr 2615 ft. Texas Co.'s Tunnell 5, Austin chalk 2525-2695 ft, completing 2928 ft.

SOUTH TEXAS

ATASCOSA COUNTY—Gardener and Mathis' 1, in Amphion section, 4 miles n Jourdanton, lcn.

BANDERA COUNTY—Permian Oil Co.'s Taylor 1, 15 miles e Banders on Red Bluff Creek near Kendall County line, sp 1-18-31.

BASTROP COUNTY—Turner, Wharton & Anderson's J. E. Harris 1, 150 ft w ne line, 150 ft n line between Mason & Harris tracts, Joshua Gray sur, 3 miles n Dale pool; Bolling et al's (Chas. Long) McWilliams 1, George T. Glasscock sur, near L. I. Dodwell-Brundidge well, still sd 2240 ft, last report. Pacific O&G Co.'s Litton 1, sd 2520 ft.

BEE COUNTY—Rowan and Hope's Mrs. Fannie Goree 1, lot 4, T. B. Barton sur, 5 miles w Grayburg pool, dr new water well. E. S. Price's Weiss 2, 900 ft sw No. 1, 3½ miles se Pettus pool, sd 4552 ft; Weiss 3, 900 ft ne No. 1, lcn. Simms Oil Co.'s Holzmark 2, James A. York sur333, in new gas area, prep to drill out plugs after recementing casing, present td 3778 ft. United Prod. Co.'s Ray 32, 660 ft s Ray 13 producer and 3 miles n Pettus pool in n extension pool, ru.

BEXAR COUNTY—Penn Oil Co.'s Cooksey 2, 400 ft nw discovery well in Rialls survey 11, 4 miles from Wilson county line, 11 miles e San Antonio, placed on pump, total depth 1480 ft 6⅝ casing set 1374 ft, sand 1388-91 ft, estimated at 30 bbls. J. Morgan Russell's Price-Storey 1, 10 miles s of San Antonio on Somerset road, A. Navarro sur, show gas 1024 ft, Austin chalk topped 1019 ft. Weilbacher & Brock's Ernest 1, 2 miles n Somerset field in J. Christopher sur, bailing, sand 915-25 ft, showed considerable oil, no further report.

BLANCO COUNTY — Adams and Lysles' Leeders 1, James Standford sur No. 29, 5 miles w Blanco City, dr abt 725 ft. Meeks et al's Walker 1, ne cor Noel Nixon sur No. 23, 4 miles n Blanco City, still fsh 935 ft. Forest Oil Co.'s (Rosenfield et al's) Hohenberger 1, sur 94, dr around 550 ft. Hardy Sitten's McMillen 1, 2 miles w Blanco City, to re-dr, now sd at 630 ft.

BROOKS COUNTY—Ed East's Garcia 3, Las Mastena and Gonzalene Grant, blk 5 of sub of s 1000 acres of n½ Share A-1, standing 1002 ft. Houston Oil Co.'s Wormser 3, Palo Blanco de Maguellas Grant, on Palo Blanco creek, set 517 ft 13⅜-inch csg, woc.

CALDWELL COUNTY — J. E. Mills and Blount's McMahon 1, 9 miles se Lockhart in Pinchback sur, pumping, showed 39.1 gravity oil at 2127-60 ft.

COMAL COUNTY—Caldwell and Lanier's T. J. Byler 1, HE&WT sur No. 5894, sd 600 ft.

DE WITT COUNTY — Shell Pet. Corp.'s Fritz Junker 1 (formerly Penn Oil Co. test) John F. Pettus sur, 2 miles ne Meyersville, abn 6512 ft, 1-27-31.

DUVAL COUNTY — Frasher and Schoolfield's Bishop Land Co. 2, s ½ sur 135, dr 820 ft. Gulf Prod. Co.'s Mrs. R. Shaeffer 1, blk 285, sur 32, dr 2512 ft. Humble Oil and Ref. Co.'s Kohler 50, sur 164, Kohler pool, dr 3439 ft. Southern Oil Co.'s King Harper 2, Cole area, sur 323, lcn. Vacuum Oil Co.'s Duval County Ranch Co. 1-A, abn 3800 ft, 1-26-31.

FALLS COUNTY — A. T. Eddington's R. Lewellyn 2, George Allen sur, lcn.

FRIO COUNTY — Wray and Dunbar's Barnes 1, 1 mile from Big Foot, sec 123, fsh for 2 joints 2-inch pipe, total depth 3708 ft in Edwards lime.

GOLIAD COUNTY—Slick Estate's Allen 1, 1500 ft ne discovery test, ru. United Prod. Co.'s G. A. Ray 28, W. A. Moore sur, 2 miles due e Ray 3, dr 2942 ft.

GONZALES COUNTY—United North and South Dev. Co.'s Wells 2, 1250 ft sw No. 1, n part of county in James Johnson one-third league, abn 4962 ft after testing sulphur water in Edwards, topped at 4919 ft, 1-30-31.

GUADALUPE COUNTY — Humble Oil & Ref. Co.'s L. G. Denman 21-A, Darst Creek, set 6⅝ in csg 2561 ft, wait on cement. Sun Oil Co.'s Knoblock 13, Darst Creek, lcn. Magnolia Pet. Co.'s Klein 7, Darst Creek, lcn. Luling O&G Co.'s Nixon 1, east of Darst Creek field and 1 mile e of Magnolia's Nixon test, lcn.

JACKSON COUNTY — Trinity Driller's Inc.'s, Hungerford 1, 2 miles e Edna gas field, dr 2965 ft.

JIM HOGG COUNTY—J. D. Pulliam, Jr.'s, Jones 1, Holden sub, Diego Hinojosa Grant, sd 2844 ft. J. W. Pippin's N. Hinnant 1, blk 11, sur 147, dk.

KARNES COUNTY—Fort Bend Oil Co.'s Newberry 1, near Green, 6 miles n Pettus, reset screen after deepening to 3050 ft from 2992 ft.

KERR COUNTY — Evans and Gant's Jeff Love 1, discovery well, 45 miles sw Kerrville, removing 3 ft lead-wool packer at bottom of hole, to put back on pump, total depth 3391 ft. Seiker and Mears 1, sw corner sec 1805, CCSD &RGNR Ry. sur, dr 265 ft; Estle Young 1, nw cor sec 28, ne Love well, ru.

KINNEY COUNTY—Mag. Pet. Co.'s Wardlow 1, dr 5050 ft in sand.

LA SALLE COUNTY — Fred W. Volz's Coleman 1, blk 15, sur 514, sd 40 ft.

LAVACA COUNTY—Cranfill & Reynolds, Hermes 1, ne cor Williams Ryan sur, near Koerth, dr 2068 ft.

LIVE OAK COUNTY—Houston Oil Co.'s Boothe 1-A, M. B. Kivlin sur, 3600 ft ne Mt. Lucas gas field, install gas lift to flow well, tubing being adjusted in sand to find most productive spot, sand 5270-77 ft; Cartwright 22, 500 ft e Mt. Lucas field, M. B. Kivlin sur, attempting to complete as gasser at 1609 ft, drilled to 6023 ft, but plugged back. Brown Land and Cattle Co. 3, nw corner M. B. Kivlin sur, dr 4175 ft; Brown Land and Cattle Co. 4, sw cor M. B. Kivlin sur, dr 3010 ft. Pickett, Buzzini and Jacob's Kay 1, Bridget Gaddin sur, 3 miles from Geo. West sur, dr 3375 ft in dry shale.

MAVERICK COUNTY—Texas Gas Utilities Co.'s Sullivan 5, blk 7, center sec 82, dr about 7450 ft.

NUECES COUNTY — Grimm and Yakey's Bauer 1, 15 miles w Corpus Christi, just n Robstown, dr 4120 ft in rock, showed salt water in sands at 4010-17 and 4065 ft. Moody-Seagraves Producing Co.'s Smith 1, Saxet area, plugging back to 4060 ft to complete as gasser, showed oil and water in sand at 4867 ft, then drilled to total depth 4961 ft. Best et al's Boorey, 2½ miles ne Saxet field, spudded 1-29-31. Houston Oil Co.'s Ollie Purl 1-B, Agua Dulce area, blk 7, R. Peters sur No. 2, set 627 ft surface csg. H. H. Weinert's Mohle 1, sec 94, just s Driscoll townsite, dr 2568 ft.

REAL COUNTY — Gant and Gilgore and Eastland Oil Co.'s Dan Auld 1, sec 23, CCSD & RGNR Ry. sur, 2 miles sw Love producer, ru. Evans and Sprinkle et al's Haby 1, sec 175, AB&M sur, 7 miles sw Love well, dr 815 ft. Marcus Auld 1, sec 15, blk D, HE&WT Ry. sur, dr 812 ft.

REFUGIO COUNTY — Houston Oil Co.'s Rooke 1-B, 2 miles sw production, ½ mile w production, swabbed to bottom of hole, showed only small amount of oil and practically no gas, sand 6186-94 ft; Rooke 14 (wo) in old gas area, 3 miles w Refugio, sw offset to Smith-Rogers semi-wildcat producer, tested salt water 3748 ft, temp sd. Moody-Seagraves Producing Co.'s Heard 3-B, s townsite, pulled screen, now resetting liner and screen at 3661 ft, showing considerable oil, little gas; Heyser 1-B, s of Refugio, dr 6150 ft; St. Johns 2-A (formerly T. P. Morgan) s of Refugio, dr 3630 ft Morgan and Rutherford's Rogers Heirs 1, ¼ mile n Smith-Rogers producer, 2 miles w Refugio, test sw 3684 ft, temp sd. L. L. Smith's Rogers Heirs 2, in old gas area, 3 miles w Refugio, dr 4755 ft.

SAN PATRICIO COUNTY — Cosden Oil Co.'s Powell 1, 1 mile e Odem, sec 32, Geo. H. Paul sub of Coleman Fulton Pasture Lands, abn 4705 ft, 1-27-31; Ramsey 1, sd 4118 ft, contract depth, for orders. La Feria O&G Co.'s Smith 1, sd 4190 ft, for orders. Peterman et al's Crow 1, sd 4100 ft for orders.

STARR COUNTY—Hooks and Weaver's 1, dr abt 200 ft. Kusk and Duerkson's Kelsey Bass 1, blk 9, subdivision of Porcion 75-76-77, Jurisdiction of Camargo, dr 856 ft. Los Olmos Oil Co.'s Kelsey Bass 2, blk 6, sub of Porcion 75-76-77, Jurisdiction of Carmargo, dr 600 ft. Sacramento O&G Co.'s Seabury et al 1, set 8 inch csg 349 ft, top of sand, now shut down.

UVALDE COUNTY — Phantom Oil Co.'s Claudt 1, sd 2710 ft. Waldrup and Welsh's Benson 1, sd 1620 ft.

VICTORIA COUNTY — The Texas Co.'s McFadden 2, 9150 ft from n and 200 ft from w line of sec, C. M. B. Hoyd sur, lcn.

WILSON COUNTY—T. J. Wren's 1, J. Reuss, 740 ft from ne and 1415 ft from se line, sec No. 101 A. Trevino sur, no report. Rycade Oil Co.'s Johnson 1, nw part of county, near Lavernia, J. M. Balmasta sur, ½ mile ne Hice test, tested sulphur water 3280 ft, top Edwards 3197 ft, abn.

WEBB COUNTY — Cole Pet. Co.'s Benavides 3, blk 7, sur 1613 , dr 650 ft. O. W. Killam's Johnson 1, sur 1617 in Reiser area, dk; Cuellar 2, share 4, Cuellar Grant, Cole area, abn 2355 ft, tested sw 2352-54 ft; Cuellar 3, share 4, Cuellar grant, Cole area, dr 550 ft, spudded 1-26-31; Bruni 1, sur 77, dr 3068 ft. Magnolia Pet. Co.'s Peal 1, share 3, Cuellar Grant, Cole area, abn 3161 ft, 1-26-31. Geo. S. Marshall's C. W. Webster 3, sur 684, Carolina-Texas field, plugging back to 3078 ft to test sand topped at 3057 ft, tested sw and oil 3120 ft.

ZAVALLA COUNTY—Texas Gas Utilities Co.'s Prayor 3, 600 ft nw No. 2 gas well, ru.

ZAPATA COUNTY — Claypool and Nickson's Garza 1, blk 11, sub of Zorro ranch, in Las Comitas Grant, 2000 ft s production in Muckelroy pool, prod 225 bbls 1396-1402 ft,

1-25-31; Garza 2, blk 11, dk. O. W. Killam's Fee 2, sur 182, Mirando Valley pool, prod 2,500,000 cu ft gas 350 lbs rock pressure 1319-38 ft, 6⅝-inch cas set 1316 ft, 1-24-31; Fee 3, sur 182, Mirando Valley pool, spudded 1-23-31, dr 350 ft. Grim and Yakey's Pedro de los Santos 1, Share 6, Fansler Partition, Comitas Grant, ru. Nordan and Morris' E. B. de los Santos 3, Share 7, Fansler Partition, Comitas Grant, prod 15,000,000 cu ft gas, 530 lbs rock pressure, 1347-54 ft, 6⅝-inch cas set 1347 ft, 1-28.31, S. T. Phelps' Trustee, Garza 2, dr 1630 ft. Allied O&G Co. and Allen and Morris' E. Gutierrez 12, share 4, Fansler Partition, Comitas grant, standing 100 ft. J. I. Newton's I. G. Trevino 2, blk 7, sur 66, set 6⅝-inch cas top sand 1261 ft, wait on cement; Shankle, Newton O&G Co. Inc.'s, Gutierrez 7, Share 4, Fansler Partition, Comitas Grant, lcn temp abn; Gutierrez 8, Share 4, lcn temp abn. S. R. & C. Oil Co.'s F. Cuellar 1, blk 16, sur 62, lcn; Trevino 12-A blk 2, sur 66, bailing 1286 ft, casing set 1247 ft. J. H. Winch's 3, Alejandro Bustamente, blk 7, share 5, Fansler Partition, Comitas Grant, prod. 20,000,000 cu ft gas, 510 pounds rock pressure, sand 1425-31 ft, casing set 1424 ft. O. W. Killam's Cuellar 40-C, sur 278, dk. A. R. McLennan's Cuellar 1, sur 277, dr 1389 ft. Mid West Public Utilities Co.'s M. P. de Garza 1, blk 33, M. Pedernal Grant, sd 1562 ft. John Pappas Pool, Inc.'s, Flores 1, 6000 ft from Rio Grande river in Porcion 35, dk. O. W. Killam's Slator 3, blk 78, Borrego Grant, dr 2445 ft. Mackenzie and Talmadge, F. G. Trevino 1, dr 570 ft. William Mark's Flores 1, blk 36, Marks subdivision, Porcion 37, dr 2020 ft. National Oil Co. of Texas' Luther 1, blk 97, Da Pron sub, ne ½ Porcion 5, spudded 1-27-31. Neilson and Courtney, Luther et al 1, blk 11, sec 5, Fullerton sub, Share 8, Borrego Grant, spudded 1-26-31. B. F. Nixon's Gutierrez 1, blk 8, Partition 10, Borrego grant, to re-dr 37 ft. John J. O'Hern's Benavides 2, blk. 19, Fansler and O'Hern sub of Carto Blanco ranch, Villa grant, testing sand 1612-19 ft. Penny Production Co.'s Juan V. Cuellar, Jr., et al 1, blk 1, sur 2, Pappas sub. Porcion 33 and 34, standing 1929 ft. T. B. Ward's G. Uribe 1, blk 8, sub Share 7, Partition 6, Trinidad Uribe Partition of Juan V. Borrego grant, rigged up, standing.

KANSAS

MORTON COUNTY — Hydraulic Oil Co., State land 1, nw se, 22-34-43w, sd 3460 ft.

COWLEY COUNTY—Fisher et al, Hurt 1, c sw se se 11-34-3e, mach.

STEVENS COUNTY — McNabb and Mid-Kansas, Rinehart 1, c ne, 23-32-39w, 6-inch 2350 ft, dr 2523 ft, 4M gas.

COWLEY COUNTY—Tom Fine, Boyd 1, nw ne, 32-32-4e, 12-inch 1265 ft, td 2650 ft. Roth and Farrot, Reidy 1, c sw nw ne, 8-32-4e, sd 1040 ft.

HARPER COUNTY—Beeler et al, Bear 1, c ne, 21-31-6w, td 1830 ft, sd.

KIOWA COUNTY—Phillips-Prairie, Bean 1, ne se 10-30-17w, 6-inch 5311 ft, dr 5350 ft.

BARBER COUNTY—Allison & Fitzwilliams, Kumberg 1, c se sw se, 2-30-12w, sd 4861 ft, hfw.

SEDGWICK COUNTY — Buck et al, Mc. Nanaman 1, c ne nw nw 2-20-1e, rig.

KIOWA COUNTY—McKenna et al, Ralston 1, c ne, 14-28-20east, ru sd.

BUTLER COUNTY—Farrell et al, Sutter 1, nw c 18-28-7e, dr 2435 ft.

KINGMAN COUNTY—Skelly Oil, Miles 1, ne c, 30-27-10w, 1634-40 ft est 2M gas, 2005-20 6M gas, 2133.42 ft, 3M gas, bradenhead; K. C. L. 3385-99 ft, td 3441 ft, flow 216 bbls 12 hrs, sd.

SEDGWICK COUNTY—Streeter & Stearns, Tobin 1, c sw se ne, 5-27-2e, 10-inch 2333 ft, dr 2730 ft.

PRATT COUNTY—Wilcox, Unknown 1, sw nw 7-26-15w, 6-inch 4396 ft, dr 4765 ft.

FORD COUNTY—Swain et al, Kenthorn 1, c nw, 21-25-24w, 6-inch 4308 ft, sd 4315 ft.

HARVEY COUNTY — Empire & Shell, Showalter 1, nw se, 23-23-2w, spd.

MARION COUNTY—Maidwell, La Master 1, nw c, 31-22-4e, sd 650 ft.

GREENWOOD COUNTY—T. K. Simmons, Barnard 2, sw se se 19-22-12e, dr 630 ft.

COFFEY COUNTY—Hegberg et al, Kroft 1, se sw se, 30-22-14e, 10-inch 818 ft, td 1300 ft, sd. Roberts et al, Hay 1, sw se nw 32-22-15e, t d1250 ft, sd.

PAWNEE COUNTY—Phillips, Cuthbertson 1, c ne, 27-20.18w, 4175-4267 ft, hfw, dry and abn.

BARTON COUNTY—McCool et al, Tsern 1, c sw se ne 12-20-11w, sd 1600 ft.

RICE COUNTY—Gypsy, Koenig 1, sw ne, 10-20-102, T. Congl. 3365, 6-inch 3365 ft, dr 3486 ft. Cress et al, Sharp 1, se ne 13-20-102, ru.

RUSH COUNTY—Dewey & Mitchell, Greenwalt 1, c sw, 17-19.16w, dr 200 ft.

RICE COUNTY—Skelton Oil, Ott 1, c se se, 16-19-14w, sd 1800 ft. Muth Bros., Beyers 1, ne nw 12-19-9w, 2000-2002 ft 3M gas, 6-inch 3070 ft, td 3085 ft, sd.

McPHERSON COUNTY — United Pet. & Shell, Kaegi 1, ne c, 20-19-1w, 6-inch 2912 ft, T. Chat. 2912 ft, sd 29 4 ft, S. G. Henderson & Holden, Sommerfield 1, c ne sw 23-19-1w, dr 2954 ft, 25 bbls oil 50 bbls water.

LEON COUNTY—Griffith et al, King 1, nw c 8-19-10w, 12-inch 910 ft, sd.

BARTON COUNTY—Syndicate Oil, Boertz 1, c nw se ne, 13-18-12w, spd and sd.

RICE COUNTY — Allison & Fitzwilliams, Blake 1, ne nw, 9-18-10w, rig.

McPHERSON COUNTY—Alladin Pet. Co., Larson 1, c nw, 22-18-4w, rig.

MARION COUNTY—Alladin Pet., Rudolph 1, nw ne, 36-18.3e, rig.

NESS COUNTY—Gypsy, Coleman 1, c sw ne, 25-17-25w, 8-inch 3860 ft, rust.

ELLSWORTH COUNTY — Aylward et al, Stratman 1, c se nw se, 1-17-10w¼ spd and sd. Gilmore Oil Co. et al, Sturn 1, nw sw 31-17-9w, rog.

McPHERSON COUNTY—Slick et al, Sandell 1, c sw sw, 35-17.3w, 8-inch 2772 ft, T. chat 3000 ft, dr 3005 ft.

MORRIS COUNTY — Urschell et al, Bersuch 1, c nw se nw 10-17-7e, ru sd.

ELLSWORTH COUNTY—Alladin & Marland, Barecky 1, c nw, 3-16-10w, td 3200 ft, csg trbl. Alladin et al, Stodeenbert 1, c sw, 22-15-10w, sd 1130 ft.

MORRIS COUNTY—Great Basin Oil, Ballyntine 1, c sw se se, 18.16-5e, td 1645 ft, ur 8-inch. Hankenson et al, Cessnum 1, sw se 24-16-9e, rig.

ELLSWORTH COUNTY—Milton et al, Kaster 1, se ne 6-14-9w, dr 880 ft. Hershey et al, Schaltz 1, c ne, 9-14-8w, rig.

SALINE COUNTY—Sampson et al, Sudendorf 1, ne se 30-14.2w, 8-inch 2692 ft, 2785-90 ft hfw, dr 2790 ft.

OSAGE COUNTY—Riggs-Smith, Wood 1, c se nw, 31-14-15e, 10-inch 1050 ft, td sd.

GOVE COUNTY—Valerius et al, Todd 1, nw c 24-13-27w, 3585 ft, water, 4671-4705 ft, hfw, sd 4813 ft.

RUSSELL COUNTY — Austin Drlg. Co., Rockefeller 1, se c 6-13-12w, T. Oswald 3003 ft, oil 3042.44 ft, bailed 18 bbls in 3 hrs, 6-inch 3044 ft, sd set with packer.

SALINE COUNTY—Twin Mounds Oil Co., Weis 1, c w½ ne nw, 30-13-4w, (owd) 19-in 1010 ft, sd 2710 ft.

DICKINSON COUNTY—Severs et al, Livingood 1, ne sw 13-13-2e, tl 2315 ft, 3047 ft hfw, sil L 3036 ft, dr 3592 ft.

GOVE COUNTY — Johnson & Atlantic, Wright 1, c se ne 11-12-27w, 3500-3510 ft hfw, 3815 ft hfw 6-in 4092 ft dr 4550 ft.

RUSSELL COUNTY—Gilbreath et al, Bratton 1, c ne 33-11-13w, 8-in 2458 ft dr 2725 ft.

GRAHAM COUNTY—Schleimer et al, Clark 1, c sw ne ne 11-9-25w, T. Big Lime 2465 ft, sd 3790 ft.

CLAY COUNTY—Nebraska Oil, Tivier 1, sw c 19-8-9e, td 2390 ft.

ROOKS COUNTY—Empire, Holsman 1, c sw ne se 17-7-20w, td 1335 ft, fsg.

WASHINGTON COUNTY — Simcox, Penwell 1, nw se ne 16-3-3e, 6-in 1210 ft sd 1720 ft.

RAWLINE COUNTY—Danciger et al, Unknown 1, sw c 3-2-35w, sd 2005 ft.

LOUISIANA GULF COAST

ACADIA PARISH — Yount-Lee's Houssiere Latrielle 9, Evangeline, trying to wall hole 8650 ft.

CALCASIEU PARISH — Wilfred Lahay's Jardell 1, 2 mi ne Vinton, sd 3250 ft. Union Sulphur Co.'s Moss 2, Lockport, ru. J. O. Davis' Lbr. Co. 1, 8 mi n Starks, set 6⅝-in cas w.o. c 6560 ft. Gulf's Moore 26, Starks, set 6⅝-in cas 1200 ft. Vacuum's State 1, Iowa, completed for 300 bbls. oil 5008 ft. Crawford Doyle's Johnson 1, Starks, sd 375 ft.

CAMERON PARISH — Magnolia's Sweet Lake Land Co. 2, dk fdn. Pure's Yount-Lee 10, Sweet Lake, dr 5670 ft sand. Shell's Watkins 16, Black Bayou, dr 3620 ft shale; Black Bayou State 2, dr 2410 ft lime. The Texas Co.'s Calcasieu State 6-A, abn 3794 ft; Calcasieu State 7, lcn. Calcasieu Oil Co.'s Watkins 25, E. Hackberry, completed for 1000 bbls 2846 ft. Vacuum's Cameron Meadows 2, lcn. Calcasieu Oil Co.'s Valrey 9, E. Hackberry, plugged back and will test sand at 2131 ft. The Texas Co.'s State 8, E. Hackberry, lcn. R. E. Seiss Tr's Vincent 2, sd 510 ft.

IBERIA PARISH—Jefferson Lake Oil Co.'s Lake Peigneur 10, Jefferson Island, sd 1700 ft; Lake Peigneur 11, lcn. The Texas Co.'s Vermilion Bay 6, Vermilion Bay, set 12½-in cas 1075 ft.

IBERVILLE PARISH—Gulf's Gay 1, Bayou Choctau, prep to recement 3410 ft. Standard's Wilbert 8, Bayou des Glaise, dr 4030 ft rock; Wilbert 7, Bayou Blue, pocket 50 ft; L. Baist 1, ru; Schwing 1-A, dr 5260 ft shale and lime; Schwing 3, showing salt water 2980 ft. Shell's Wilbert 5, White Castle, pulled blank liner 5200 ft. Texas Gulf Sulphur Co.'s Wilbert 6, Bayou Choctau, abn 682 ft.

JEFFERSON PARISH—H. T. McClain et al's Trumbell Atterbury 1, Welsh, dr 3930 ft shale.

PLAQUEMINES PARISH — Gulf's Burras Levee 2-B, Rose Dome, dr 1420 ft shale. Humble's Cockrell-Moran 2, Lake Grande Ecaille, dr 4580 ft lime. The Texas Co.'s Garden Island 4, dr 5220 ft shale and sand; Garden Island 5, lcn.

ST. JAMES PARISH — Convent Oil Co.'s Jacobs 1, sdtr 1830 ft.

ST. LANDRY PARISH—Gulf's Haskins 4-A, Port Barre, dr 3560 ft shale. The Texas Co.'s Botney Bay Lbr. Co. 9, Port Barre, dr 60 ft sand.

ST. MARTIN PARISH—Harrison & Abercrombie's Barras 1-A, dr 4230 ft shale. The Texas Co.'s Iberville Lbr. Co. 3, Hager Dome, dr 4040 ft shale; St. Martin Land Co. 5, Hager Dome, dr 3920 ft salt. Rycade's Woodward 1, Bayou Bouillon, dr 5160 ft shale; State 4, dr 3980 ft shale.

ST. TAMMANY PARISH—Washington and St. Tammany Drlg. Co.'s Coussack 2, dr 1930 ft shale.

TANGIAPAHOE PARISH—Joan Dev. Co.'s Lake Superior Pil Co. 1, sd 3010 ft.

TERREBONNE PARISH — Chas. Paggi's Evergreen 2, Houma, abn 1800 ft. La. Gas & Fuel's Minor Estate 1, Houma, dr 4160 ft shale. The Texas Co.'s Bay Junop 2, going in hole with rock bit, 6860 ft; Bay St. Elaine 5, dr plug 1660 ft; Bay St. Elaine 1, dr 2400 ft shale; Lake Barre 8, waiting on mud 4080 ft.

WEST FELICIAN PARISH — Putnam Synd.'s Comp Plantation 1, fsh 850 ft.

VERMILLION PARISH — Pure's S. W. Louisiana Land Co. 1, making up 4-in drill pipe.

NORTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
SABINE PARISH—		
Loring Oil Co., Bowman-Hicks 15, 2-7-12	7800	2263
McDaniels et al, Batson 2, 16-8-12	*	2625
Merritt et al, La. Long Leaf 1, 33-8-11	*	2500
Tom David, Smith 1, 27-8-10	*	2720
Pelican Nat. Gas Co., Sabine 7, 11-7-12	25	2399
Texas Co., Stille 2, 3-7-11	*	2600

BIENVILLE PARISH—Cagle Bros.' Lawhon 1, 15-16-8w, coring sandy shale 2560 ft.

BOSSIER PARISH — Andrews & Davlin's Nattin 1, 15-22-14, coring 1781 ft. H. I. Morgan et al's Kendricks B-12, 22-19-11, sp 12½ cas 175 ft, losing returns 407 ft. Rambaugh et al's Allison 1, 10-19-13, tested dry, sd 1100 ft. R. O. Roy's W. H. Hodges 1, 19-16-10, rig.

CADDO PARISH — United Prod. Corp.'s Wall 1, nw se 34-23-16, 7-inch cas 5160 ft, 8 ft bro sand and lime bot hole est 75 to 100 mil ft gas, wo gauge, td 5522 ft; Emmons 1, ne sw 27-23-16, dk pat. Junior O&G Co.'s Breard 1, 9-18-16, 6-inch cas cemtd 2740 ft. Libby et al's Foster 1, 29-15-16, sd 1600 ft.

CATAHOULA PARISH—National Drilling Co.'s Marsh McMillian 1, 26-9-6e, 6⅝ cas 2796 ft, tested sw, sd 3086 ft.

CLAIBORNE PARISH—Baird Bros. et al's Whittaker 1, 30-20-7w, sd 2200 ft. Bough et

al's Alexandria 1, 27-20-8w, sd 2200 ft. La. O. R. Corp.'s Langston 10, 19-21-7w, 9⅝ cas 2438 ft, cored sand 3243-63 ft, tested sw show oil thru ds, dr hard sand 3296 ft.

CALDWELL PARISH—Hudson et al's Burton 1, 36-12-2e, sd 2507 ft.

CONCORDIA PARISH—Ark. Fuel Oil Co.'s Alexander 1, 47-8-9e, sp 12½ cas 152 ft. Joe Marr et al's Maxwell 1, 35-3-8e, sd 3622 ft.

DE SOTO PARISH—J. W. Clark's Tidwell 1, 22-13-14, 6⅝ cas 2910 ft, tested sw show oil and gas 3130 ft, plugged back to 3125 ft, dr hard lime 3468 ft. W. H. Weichert's Smith 1, 31-14-15, top gas sand 1653 ft, top chalk 1901 ft, sd repr rig 2306 ft. Standard Oil Co. of La.'s Farmer A-5, se sw 32-14-13, 10-inch 42 ft, dr shale and bldrs 2444 ft. Neff et al's Dowling 1, se se 18-13-14, base chalk 2040 ft, coring hard lime 2825 ft; Ramsey 1, 33-13-16, 12½ cas 80 ft, dr 1500 ft. S. A. Guy et al's Dowling Bros. 1, 31-14-14, sd 1354 ft.

LA SALLE PARISH—La. G&F Co.'s Tensas Delta B-2, sw ne 23-7-4e, 9-inch cas 982 ft, sw 2641 ft, coring shale and sand 3266 ft.

NATCHITOCHES PARISH—C. M. Talley et al's Talley 1, 29-11-10, 10-inch 60 ft, sd 500 ft. Gulf Ref. Co.'s Bodcaw Lbr. Co. 1, sw ne 13-13-8w, 12½ cas 930 ft, dr 3326 ft. W. M. Coates et al's Collins 1, 28-9-10, base chalk 2612 ft, arr resume dr 3718 ft. J. W. Cooper et al's Cooper 1, 35-11-10, claim show gas, arr make ds test 3 ft sandy shale, dt 2832 ft; Cooper 2-A, 35-11-10, top chalk 1400 ft, sd wo ds 1515 ft.

RED RIVER PARISH — Lucky Strike Oil Co.'s Chaffraix 1, 33-12-10, tested set 500 bbls sw show light oil thru ds 2820-3010 ft, arr plug back shut off sw, td 3010 ft.

SABINE PARISH—Pearce, Tr.'s, Pearce 1, sw sw 10-7-11, 6⅝ cas 2339 ft, wosr, td 2600 ft. Lawrence et al's Hubley 1, 21-7-11, sd 2650 ft. J. C. Walton's Sabine 1, ne nw 11-7-12, 10-inch 102 ft, dr 1245 ft. Loring Oil Co.'s Bowman-Hicks 15, nw se 2-7-12, 10-inch 105 ft, 6⅝ cas 2236 ft, top Z. marl 2234 ft, top chalk 2244 ft, flowing 325 bbls hour, 7800 bbls day, thru ⅝-inch choke, td 2263 ft. McDaniels et al's Batson 2, 16-8-12, 6⅝ cas 2190 ft, dry abn, td 2625 ft. Lacey Jesup Oil Co.'s Brown Lbr. Co. 1, se ne 28-8-10, 6-inch at top Z. marl 2256 ft, top chalk 2690 ft, sd 3160 ft. Lacey Pet. Co.'s Cooper 1, 30-8-11, top Z. Chalk 2306 ft, 6⅝ cas 2270 ft, hfo, wosr, td 2620 ft. R. L. Gay, Tr.'s, Sabine A-2, ne nw 1-7-12, 10-inch 58 ft, 6⅝ inch 2276 ft, dry 2334 ft, dr 2433 ft. D. H. Reddick et al's Scretchfield 1, 18-9-12, sd 3310 ft. Pelican Nat. Gas Co.'s Sabine 7, 11-7-12, top marl 2325 ft, 6-inch 2320 ft, pumping 25 bbls oil day, td 2399 ft; La. Long Leaf 8, nw sw 4-7-11, 10-in 102 ft, dr 460 ft. P&G Oil Co.'s Williams 1, 21-7-12, rig. T. G. Shaw's Sabine 1, 1-7-12, 6⅝ 2324 ft, sd wo 2683 ft. Trans-America Oil Co.'s Carter 1, 36-8-12, top marl 2311 ft, 6-inch 2211 ft, 700 ft oil in hole, wo td 2540 ft. Texas Co.'s Stille 2, ne nw 3-7-11, 10-inch 96 ft, 6⅝ 2320 ft, dry abn, td 2600 ft. Longoria et al's Belton 1, 31-9-12, rig. Franks et al's Dew 1, 22-8-11, 6-inch 2111 ft, top marl 2265 ft, coring 2270 ft. D. M. Lide's Ponder 1, 15-7-11, top marl 2393 ft, top chalk 2407 ft, 6-inch 2385 ft, hfo wosr, td 2800 ft; Ponder 2, ne nw 15-7-11, rig. W. M. Coates' Sabine 2, nw sw 1-7-12, lcn; Sabine B-2, sw sw 1-7-12, lcn. Wilson & Sons' Gandy-Garett 1, 4.5-13, sd 2460 ft. Tom David's Smith 1, 27-8-10, dry abn, td 2720 ft. Merritt et al's La. Long Leaf 1, 33-8-11, 6-inch 2294 ft, dry abn, td 2500 ft. Tarver et al's Baker 1, nw ne 36-8-12, top marl 2209 ft, 8-inch 2212 ft, top chalk 2224 ft, base chalk 2752 ft, top Blossom 3040 ft, dr new hole 3825 ft, old hole crooked, td 4000 ft. Jno. Woodley's Sabine 1, ne se 12-8-12, 10-inch 103 ft. H. W. Perritt's Bowman-Hicks 2, 2-7-12, 10-inch 72 ft, top Z. marl 2199 ft, wo cas. Bowman-Hicks 3, 2-7-12, 10-inch 96 ft, dr 120 ft. Triangle Pet. Co.'s Sabine 1, sw sw 36-8-12, 6⅝ 2274 ft, sdtr 3 thribbles, ds cemtd 4½ cas 2260 ft, td 2274 ft. Diffie & Barrett's Lites 1, se nw 34-8-11, 10-inch 105 ft. Frank Melat's Sabine 1, ne sw 6-7-11, 10-inch 106 ft, dr 1975 ft; Sabine 2, ne nw 14-7-12, 6-inch 2250 ft, no chalk, sd 2550 ft. J. M. Thompkins' Stoker 1, 10-7-11, 10-inch 105 ft, dr 1720 ft. Lyons & Nelley's Sabine 1, sw ne 12-7-12, 10-inch 120 ft, setting 6⅝ cas 2273 ft. Magnolia Pet. Co.'s Lucius 1, nw ne 2-3n-12w, 13⅜ cas 204 ft, showed oil 2595-99 ft, dr black shale 3038 ft. Gautier et al's Messhell 1, se nw 30-8-12, rig. Ohio Oil Co.'s Bowman-Hicks 6, se nw 2-7-12, sp 10-inch 205 ft. Davis et al's Polly 1, 18-8-12, rig. Caddo-Sabine Synd.'s Smith 1, 8-7-10, rig. Merritt, Tr.'s, Byrd 1, se nw 1-7-11, lcn.

TENSAS PARISH—Seip et al's Fowler 1, 10-10-10e, sd 905 ft. A. R. Willis' Curry 1, 39-11-12, sd 2780 ft.

UNION PARISH—Ouachita Nat. O&G Co., Inc.'s, Smith 1, sw ne 36-20-2e, 13-inch cas 280 ft, 6-inch 2101 ft, td 2141 ft.

WEBSTER PARISH—Gerhig Co.'s Miller 1, ne sw 16-18-10, 12¼ cas 200 ft, base chalk 2070 ft, sd 3503 ft. D. M. Coyle's Frazier 1, ne se 27-23-11, dk. Cassidy & Davis' Nickerson 1, ne sw 29-23-10, rig. Red Hawk Oil Co.'s Matthews 1, se nw 11-23-9, sp.

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
UNION COUNTY—		
H. L. Hunt, Swilley 5, 28-16-16....	60	2689
Swilley 6, 21-16-16.....	40	2711

CHICOT COUNTY—H. R. Smith's Lytle 1, 31-18-3, cemtd back to 2865 ft arr whipstock old td 2925.

CLAY COUNTY—S. C. Jeffus, Tr's Underwood 1, nw ne 4-20-8e, old well completed at 330 ft as 1 mil ft gasser dr deeper dr 502 ft.

CLEBURNE COUNTY—Donnell et al's Fee 1, 33-11-9, swedging out cas at 2300 ft td 3740 ft.

DALLAS COUNTY—John James, Tr's Fordyce Lbr. Co. 1, ne nw 11-9s-15w, 10-in 176 ft dr 1242 ft. E. C. Brewer, Tr's Hillman 1, se ne 20-10-13, 10-in 88 ft dr bro shale 2262 ft.

GARLAND COUNTY—H. H. Given's Garrett 1, 1.3n-19w, cas pulled hfsw td 3765 ft.

GRANT COUNTY — Spann & McClung's Sarah Page 1, sw nw 3-3-12, sp dr 120 ft.

HOT SPRINGS COUNTY—John Watkin's Tr's Cunningham 1, 11-5-16, sd 100 ft. Cleary Bros. et al's Hinson 1, 19-4s-16w, 11 ft sand sd 1604 ft.

JOHNSON COUNTY—Ark. La. P.L. Co.'s Hudson 1, se ne 14-10-24, 10-in 2607 ft 8-in with bradenhead 2875 ft, sd in hard sand 3002 ft. Blackwell O&G Co.'s Wyver 1, 21-8-23, ta 5600 ft.

LA FAYETTE COUNTY—Crawford Drilling Co.'s Vaughan 1, 25-19-25, rig. McIver et al's Hattle 1, nw ne 1-20-26, sd 20 ft. Smitherman & McDonald's Reed 1, se nw nw 16-15-22, sp 12½ cas 42 ft missed ds 1172-92 ft cored oil sand 1190-92 ft arr take 2-ft core.

LAWRENCE COUNTY — Marguerite Dev. Co.'s Broadway 1, 31-17-1, sd 45 ft.

LITTLE RIVER COUNTY—Buck Oil Co.'s Taafe 1, 25-12-32, coring 2793 ft. Fay Roberts Oil Co.'s Russell 1, nw nw 25-12-29, lcn.

LOGAN COUNTY—M. W. Greesom's Parks 1, 21-8-24, sd 1309 ft. J. H. Flowers' White 1, 13-5-26, sd while ur 5 3/16-in cas at 3570 ft 3610 ft.

MADISON COUNTY—J. W. Baxter's Hallem 2, cent. sec. 17-16-26, sd 405 ft. Hallem 3, ne sw 1-17-26, sd 42 ft.

MILLER COUNTY—E. & F. Oil Co.'s E. L. Beck 1, 36-15-26, cemtd 6⅝ cas 2792 ft, re-cemtd 4½ cas 2957 ft, tested sw 2961 ft, coring 2962 ft. Lenz et al's Johnson 2, 24-15-26, dr est. depth 4350 ft. Johnson 3, ne nw 24-16-26, sd 2850 ft. Bullock Oil Co.'s Hervey 1, 2-15-26, sd repr boiler td 2863 ft. East Texas O&G Co.'s Hervey 1, 2-15-26, sd 900 ft. Gusher Bend Oil Co.'s Adams 1, nw nw 24-14-26, 10-in 115 ft, dr 1490 ft. O'Mara et al's Person 1, 31-15-25, lcn. Fitzwater et al's Beck 1, sw se 33-15-26, 10-in 85 ft, sd. Salzer & McRae's Rose 1, ne nw 9-16-26, 10-in 98 ft, sd 475 ft.

OUACHITA COUNTY — Belmont et al's Dean 1, 16-15-17, top red beds 2765 ft, sd with junk in hole 2907 ft. Copenhaver et al's Elliott 1, se se 11-15-17, ds stuck 2114 ft. Wesson & Bonner's Wesson 1, sw nw 22-15-19, 6⅝-in cas 2083 ft, wo power to pump 300 ft, fluid in hole, td 2169 ft. J. D. Reynolds' Pace 1, ne se 21-15-19, (Stephens townsite), 10-in 44 ft, cored Nacatosh 1505-11 ft, did not test Nacatosh, cored oil sand 2152-58 ft, 6-in 2149 ft, 1000 ft oil hole wosr to 2204 ft.

PIKE COUNTY—Henderson et al's Tilyou 1, 26-8-24, show heavy oil 567 ft coring 2110 ft. E. R. Henderson's Lee 1, sw se 31-8s-24w, dk.

POPE COUNTY—Ark. La. P.L. Co.'s McFadden & Brooks 2, ne nw 15-9-21, 13⅜ cas 1900 ft, tested est 1 mil ft gas 3285 ft 8⅝ cas 3415 ft, 8-in 3451 ft, dr sand 3461 ft.

SCOTT COUNTY — Heavener O&G Co.'s Reser 1, 36-4-26, sr td 1536 ft. Ark. Valley Gas Co.'s Turner 1, se se 27-5n-30w, lcn. Waldron O&G Co.'s J. G. White 1, sw nw 17-3n-29w, sp gas show 400 ft dr 775 ft.

SEBASTIAN COUNTY—M. W. Greesom's Spears 1, 9-7-29w, sd after testing sw 3515 ft.

UNION COUNTY—Hickman et al's Hogg 1, 35-16-17, top Graves sand 2351 ft, top red beds 2779 ft fsh 800 ft, 4-in ds td 3070 ft. Oilfields Corp.'s J. A. Simmons 1, nw nw 9-18-13, ta 3602 ft. Rice et al's Whatley 1, 7-17-15, sd 1520 ft. H. L. Hunt Inc.'s Swilley 5, ne ne 28-16-16, 6⅝ cas 2678 ft, pumping 60 bbls oil 15 bbls sw td 2689 ft. Swilley 6, se se 21-16-16, pumping 41 bbls oil 40 bbls sw td 2711 ft. Marine Oil Co.'s W. B. Thompson B-3, se ne 10-18-13, 10-in 292 ft 6⅝ 3551 ft, tested 1500 ft oil in 4 ft sand 3554-57 ft, wosr td 3557 ft. Southern Prod. Co.'s Wingfield 1, se nw 16-19-15, 10-in 210 ft, sd Wilson & Chapman's Hadley 1, ne sw 3-18-13 10-in 102 ft top Nacatosh 2300 ft, top Meekin sand 2550 ft, coring 2630 ft. Sunby et al's Perdue 2, nw nw 33-16-14, fsh 4-in ds td 3247 ft.

WASHINGTON COUNTY — Taylor et al's Runny 1, 1-13-29, sd 1702 ft. Lincoln Lease Holding Synd.'s Townsite 1, 30-15-32, ta 1500 ft. C. H. Willoughby's Jones 1, 34-16-30, sd 2150 ft. O'Hara & Shetterley's Boyd 1, 12-16-32, ta 850 ft. Delbert Graves' Cunningham 1, 14-15-32 sd in gray sand 602 ft.

VAN BUREN COUNTY — J. S. Martin's Scanland 1, 5-9-13, sd 50 ft.

YELL COUNTY — T. Luckett's Balcon 1, 36-7-21, sd while fsh tools, td 5710 ft.

NORTHERN CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
BUTTONWILLOW—		
Superior Oil Co.'s LCL-1, 32-29-25...	*	4802

KERN COUNTY

BELRIDGE—Belridge Oil Co.'s No. 27-8, 27-27-20, dr shale and sand 3350 ft; No. 27-64, 27-27-20, lcn; No. 35-8, dr 300 ft; No. 35-33, 35-27-20, dr shale 2265 ft. Casa Mira Oil Co.'s Theta 2, 29-28-20, rig. General Pet.'s Berry 1, 30-28-21, re-dr 3350 ft. Ohio's Bloemer 1, 36-27-20, dr hard shale 5175 ft. Reward Oil Co.'s Associated 4, 34-27-20, dr hard brown shale 3265 ft. Richfield's Belridge 1, 22-27-20, plugged to 6405 ft, sd. Tom Cannon's Fay 1, 18-20-22, rig. Standard's McPhail 1, 36-27-20, sd 4530 ft; McPhail 2, 36-27-20, dr shale 4178 ft. Texas' Martin 1, 22-27-20, dr shale 4065 ft. Union's Belridge 17, 36-27-20, dr hard shale 4526 ft; Gibson 7, 36-27-20, lcn; Bacon 1, 21-28-20, 13⅜-in cas cmt 400 ft. K. C. Wallace's No. 1, 32-29-21, dr hard brown shale 4100 ft.

BUENA VISTA HILLS—Federal Drilling Co.'s No. 6, 20-31-24, co 5232 ft.

BUTTONWILLOW — Superior Oil Co.'s KCL-1, 32-29-25, abn 4802 ft. Nordon Exploration Co.'s Salisbury 1-A, 7-29-24, fsh for drill pipe 6585 ft.

DELANO—C. C. M. O.'s Villard 1-A, 31-25-28, dr 150 ft.

DEVIL'S DEN—Standard's Alferitz 1, 14-25-18, co 1595 ft.

EDISON—Sy Wickers' No. 6, 12-30-28, rig.

EL TEJON—J. J. Ritchie's No. 1, 33-11-19, sd 5533 ft.

McKITTRICK — California Oil Producers' Wisecarver 1, 30-30-22, dr shale 5400 ft.

SEMITROPIC—Shell's Williams 1, 17-27-23, dr hard sand 9306 ft.

TEMBLOR HILLS—Kent and McDonald's No. 1, 3-32-22, dr shale 1525 ft.

WASCO—Cities Service Pet. Co.'s Core Hole 1, 16-28-24, dr shale 1830 ft.

WEED PATCH—Mohawk Pet. Co.'s Wharton 1, 32-30-29, water shutoff bad with 8⅝-inch at 5645 ft, td 5966 ft. Shell's Morris 1, 32-30-29, dr shale 1360 ft; Porter 1, 29-30-29, dr shale 5285 ft; Porter-Day 1, 29-30-29, dr hard gray sand 6990 ft.

SANTA BARBARA COUNTY

COAL OIL POINT—Bolsa Chica Oil Corp.'s Augur 191-1, 24-4-9, will make another production test, td 4191 ft, plugged to 4155 ft.

GATO RIDGE—Barnsdall Oil Co.'s Tegnazzini 1, 9-8-32, fsh for drill pipe 6032 ft.

GOLETA—General Pet.'s More 3, swabbing, td 4177 ft.

NAPLES—J. H. Cochran's No. 1, 7-4-29, dr hard sand 4864 ft.

ORELLA—General Pet.'s Erburu 8, 32-5-30, plugged to 2422 ft, pumped 200 bbls 42 gravity

oil on test. Prairie Oil & Gas' Capitan 1, dr shale 2085 ft.

POINT CONCEPCION—Standard's Gerber 1, co 6820 ft.

SANTA MARIA—Western Gulf's Bradley 1, 5-9-33, dr shale 5315 ft.

VENTURA COUNTY

FILLMORE—Associated's Young 1, 16-4-20, lcn.

OJAI—Drednaught Oil Co.'s Canet 1A, coring sand 1500 ft. Knudsen and Schmidt's No. 1, 12-4-23, dr shale 850 ft.

RINCON — Chanslor-Canfield Midway Oil Co.'s Hobson A2, 23-3-24, dr oil sand 7985 ft. Continental's Grubb 1, 23-3-24, grading for rig.

SANTA MONICA MOUNTAINS—Olympic Corp.'s Calabasas 1, 18-1-17, re-dr 5500 ft.

SANTA PAULA—George C. Thompson's No. 1, 15-4-21, plugged to 2150 ft.

SESPE—Merchants Pet. Co.'s Cochran 1, 1-4-20, dr shale 400 ft. Superior's Kirtlan 1, 15-4-21, dr shale 5375 ft.

VENTURA—Prairie Oil & Gas' Sexton 1, 30-3-22, dr gray sand 8385 ft.

MISCELLANEOUS

FRESNO COUNTY — Amador Coalition Mines' No. 1, 26-20-14, dr shale 400 ft. Associated's Jacalitos-Mitchell 1, dr gray sand 3735 ft.

KINGS COUNTY—T. H. Purman's Avenal 1, 36-23-17, dr shale 2300 ft. Kettleman Lakeview Oil Co.'s No. 1, 11-23-19, repairing rig. Murphy Oil Co.'s Brennan 1, 20-23-20, dr shale 3200 ft.

MENDOCINO COUNTY—Twin State Oil Co.'s Soldani 1, 14-12-17, dr shale 5715 ft.

MONTEREY COUNTY—Pacific Inland Oil Co.'s No. 1A, 19-23-15, dr shale 1000 ft.

SAN LUIS OBISPO COUNTY—Continental's Hellman 1, 26-25-11, dr shale 3715 ft. Pismo Dome Oil Co.'s Pricco 2A, 5-31-13, fsh tor cas 2965 ft.

SANTA CRUZ COUNTY—Wellton Oil & Gas Co.'s Galletly 1, dr shale 2800 ft.

TULARE COUNTY—Big Four Drilling Co.'s No. 1, 29-23-27, re-dr 4300 ft. Inland Valley Oil Co.'s Smith-Rea 1, 24-17-24, m 2060 ft.

YOLO COUNTY—George F. Getty's Guinda 1, 23-12-3, sd 2007 ft.

SOUTHERN CALIFORNIA

ALHAMBRA — George Wolfe's Huntington Land 1, 24-1-13, dr shale 2050 ft.

ATHENS — McKeon Oil Co.'s Sunnyside Heights 1, 1-3-14, dr shale 4915 ft.

BELL—Cudahay Community Oil Ass'n.'s No. 1, 30-2-12, dr shale 550 ft.

CORONA—Western Gulf's Abacherli 1, 12-3-8, dr shale 1575 ft.

CULVER CITY — Olympic Oil & Realty Co.'s No. 1, 14-2-15, co 4840 ft. Taylor Oil Co.'s No. 1, 12-2-15, dr shale 5100 ft.

EL MONTE—Rancho Oil Corp.'s Harmon 1, 30-1-11, dr shale 3100 ft.

FULLERTON—Standard's Bastanchury 1, 21-3-10, sr 7675 ft.

HAWTHORNE—The Alondra Co.'s No. 1, 23-3-14, rig.

HERMOSA—Calico Royalty Series' Calico 3, 6-4-14, rigging up rotary. California Ventura Oil Co.'s No. 2, 31-3-14, 6¼-in cas cemt 3330 ft. R. C. Thomas' No. 1, 6-4-14, lcn. Tulsa Oil Co.'s Hermosa 2, 6-4-14, sp. Westwood Pet. Co.'s No. 1, 6-4-14, rig. Wing and Kennedy's No. 1, 31-3-14, rig.

MANHATTAN BEACH — Staple Oil Co.'s No. 1, 24-3-15, rigging up rotary.

NEWHALL—Consolidated Oil Co.'s Hammond 1, 8-3-16, will deepen from 2400 ft.

NEWPORT—T. F. Gesell's No. 1, 29-6-10, co 775 ft. Standard's Irvine 1, 26-6-10, dr hard shale and streaks sand 3400 ft.

OLIVE—Texas' Olive Community 1, 7-4-9, dr sand and clay 2010 ft.

PLAYA DEL REY — Mesmer City Realty Co.'s No. 1, 24-2-15, rig. West Port Pet. Co.'s No. 1, 27-2-15, fsh for drill pipe 5590 ft.

PUENTE—Bardeen Pet. Corp.'s Barnadette 1, 2-2-10, sd 3000 ft. C. F. Shannon's No. 1, 3-2-10, pumping water and trace of oil, td 4620 ft. Vega Pet. Corp.'s Rowland 1, pumping oil and water, td 2515 ft. Rucker and Croul's Grazide 2, 22-2-10, dr shale and hard sand 1165 ft.

REPETTO HILLS—Texas' F. M. 1, 4-2-12, ready to sp.

SAN FERNANDO—Mack Oil Co.'s Deer Lake 1, 6-2-16, rig. San Val Oil Co.'s No. 1, 14-1-16, dr hard sand 1800 ft.

SANTA MONICA—Hines Pet. Corp.'s No. 1, 8-2-15, rigging up rotary.

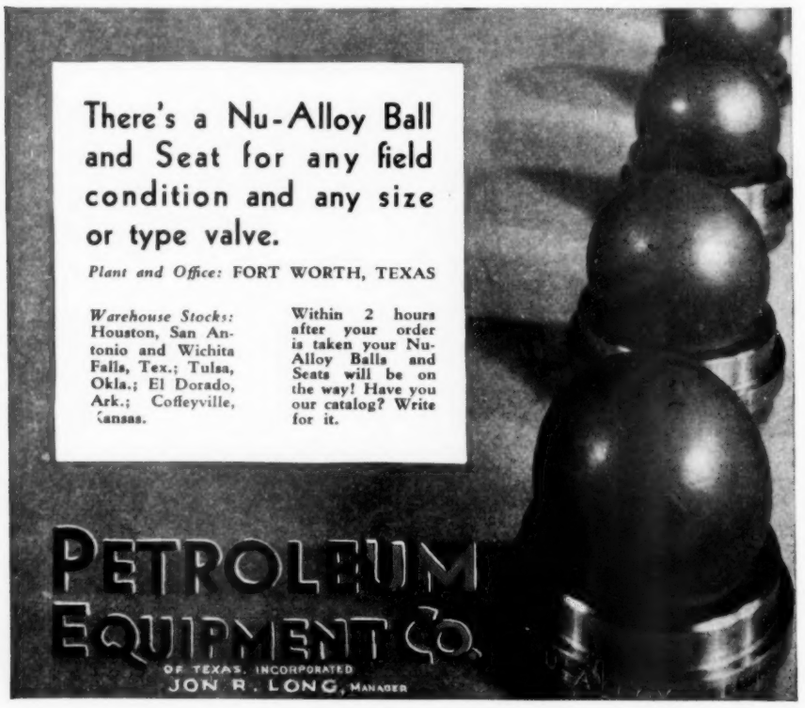
SAN JUAN CAPISTRANO—Okay No. 2's Foster 2, 13-8-8, ur 5220 ft.

OKLAHOMA

ALFALFA COUNTY—T 27n, R 11w, Sec. 12, Smith Bros., Forbes 1, ne c se nw nw, sd 1420 ft.

KAY COUNTY—T 27n, R 2e, Sec. 9, Mummer et al, Sornick 1, nw c se, hfw 2070-2170 ft, ur 8-in 2330 ft. T 26n, R 1w, Sec. 32, Boucher et al, Jefferson 1, ne c sw, dr 950 ft.

HARPER COUNTY—T 25n, R 20w, Sec. 12, Empire, Bruce 1, sw c ne ne sw, sd 7935 ft, td.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JON R. LONG, MANAGER

GRANT COUNTY—T 25n, R 4w, Sec. 22, Cowden, Collmer 2, ne c se ne sw, lost tools 5640 ft sd.

ALFALFA COUNTY—T 24n, R 11w, Sec. 14, J. V. Bailey et al, Acre 1, c sw ne, dr 4970 ft.

GARFIELD COUNTY—T 24n, R 6w, Sec. 9, Pulse, Beamer et al, White 1, se c nw, dr 5833 ft, crooked hole.

NOBLE COUNTY—T 21n, R 1e, Sec. 12, Barnsdall et al, Miksch 1, nw c sw, td 4849 ft, run 6-in csg.

BLAINE COUNTY—T 19n, R 10w, Sec. 13, Washoma Pet. Co., Phillips 1, c nw sw, sd hfw 4535-37 ft.

LOGAN COUNTY—T 18n, R 3w, Sec. 33, Healy et al, Quier 1, se c sw, sd 3970 ft.

KAY COUNTY—T 28n, R 3e, Sec. 24, Summitt Drlg. Co., et al, Hays 1, nw ne nw, dr 1915 ft.

OSAGE COUNTY—T 28, R 7e, Sec. 4, L. G. Stanley et al 1, se c sw, dr 1895 ft.

PAWNEE COUNTY—T 23n, R 5e, Sec. 15, Cochran et al, McFadden 1, ne c sw, rig. T 22n, R 5e, Sec. 26, Wentz Oil Corp., Lillie 1, td 4328 ft hfw, d&a. T 22n, R 5e, Sec. 2, Sherry et al, Millsap 1,se c sw, sd 1750 ft. T 20n, R 5e, Sec. 6, W. A. Rookstool, Berry 1, nw ne sw, dr 1951 ft show gas.

LINCOLN COUNTY—T 13n, R 6e, Sec. 8, Shepherd et al, Shepherd 1, se nw sw, fsg csg and drlg by 3690.

PITTSBURG COUNTY—T 9n, R 16e, Sec. 32, Pattison et al, McDuff 1, sw nw se, fsg tools 5682. T 8n, R 14e, Sec. 14, C. O. Cannady et al, Smith 1, sw c ne nw nw, rig and tools. T 7n, R 14e, Sec. 5, C. O. Cannady et al, Travis 1, c sw ne, rig. T 6n, R 15e, Sec. 7, Peerine et al, Ringland 1, nw c ne, spudding.

LATIMER COUNTY—T 6n, R 18e, Sec. 4, Choctaw Gas Co., Weaver 1, c ne nw, rog. T 6n, R 19e, Sec. 16, P. English et al, Weaver 1, c nw se, sd 300 ft.

ATOKA COUNTY—T 1n, R 15e, Sec. 9, Edgerton et al, Rolland 1, c nw, sd 700 ft.

OKLAHOMA COUNTY—T 14n, R 3w, Sec. 32, Mid-Kansas, Messer 1, sw c, Wilcox 6690-6771 ft, shot 170 qts, shut in. T 12n, R 4w, Sec. 17, C .F. Cuniff, Trustee, St. Joseph 1, sw c ne sw se, td 6700 ft sd.

OKFUSKEE COUNTY—T 11n, R 8e, Sec. 11, O'Laughlin et al, Keys 1, sw ne sw, td 4225 ft pb 3950-4060, shot 30 qts, pump 15 bbls.

POTTAWATOMIE COUNTY—T 10n, R 4e, Sec. 10, Shell, Baker 1, nw c se, lcn.

SEMINOLE COUNTY—T 10n, R 6e, Sec. 19, Bunte et al, Bruner 1, se c nw, rig.

HUGHES COUNTY—T 7n, R 9e, Sec. 17, Gilcrease, Buckner 1, ne nw se, dr 2167 ft.

ROGER MILLS COUNTY—T 13n, R 21w, Sec. 10, Richfield O&R, Hiatt 1, se c, rig. T 12n, R 24w, Sec. 23, Ute Oil Co. et al, Williams 1, c sw, 10-in 3346 ft rust. T 11n, R 26w, Sec. 4, J. J. Rook et al, Davis 1, c nw ne, (owd) sd 2840 ft.

CANADIAN COUNTY—T 10n, R 6w, Sec. 1, J. V. Bailey, Robinson 1, c ne nw, sd 150 ft. T 10n, R 13w, Sec. 18, J. J. Wright et al, Boys 1, nw c, lcn.

WASHITA COUNTY—T 8n, R 19w, Sec. 29, Snodgrass et al, Blocker 1, nw c, c.o. 903 ft. T 8n, R 18w, Sec. 21, Burns & Prince, May Dock 1, sw c, sd 150 ft.

GREER COUNTY—T 7n, R 22w, Sec. 1, Roy Good et al, Cliffel 1, nw c, 1461 ft small show gas. T 7n, R 21w, Sec. 23, H. A. French et al, Murphy 1, sw nw se, sd 1490 ft, small show oil.

HARMON COUNTY—T 4n, R 24w, Sec. 17, Harmon-Tex Oil, Headley 1, ne c, sd 2592 ft.

COMANCHE COUNTY—T 3n, R 9w, Sec. 3, Okla. Nat. Gas Co., Doebel 1, ne c sw sw sw, sd 1450 ft.

STEPHENS COUNTY — T 1n, R 8w, Sec. 25, Ross Southard, McKinley 1, ne c, sd 1063 ft. T 1n, R 7w, Sec. 1, Junior Oil Co., Thompson 1, ne sw ne, sd 1970 ft. T 3s, R 8w, Sec. 3, A. L. Andree, Patrick 1, c s2 se, cemtd sur. pipe.

JEFFERSON COUNTY—T 7s, R 6w, Sec. 35, Brown, Bouin et al, Cox 1, sw nw ne, td 2528 ft d.&a.

HUGHES COUNTY—T 5n, R 11e, Sec. 15, J. J. Wright, Roberts 1, se c sw, ¶2 915.18 ft sd 1645 ft.

GARVIN COUNTY—T 2n, R 2w, Sec. 24, Malernee Oil Co., Phillips 1, ne c sw, lcn.

COAL COUNTY — T 2n, R 8e, Sec. 10,

Whitney et al, Miller 1, se c ne, (owd) sd 760 ft. T 1n, R 8e, Sec. 35, W. E. McCraw O&G, Stiring 1, ne c se, rig.

ATOKA COUNTY—T 3s, R 10e, Sec. 18, Brookshire et al, Guinn 1, nw c, show gas 360-72 ft sd 500 ft.

CARTER COUNTY—T 4s, R 2e, Sec. 32, Tex-Oklahoma Drlg. Co., Anderson 1, se ne se, sd 2656 ft.

BRYAN COUNTY—T 6s, R 7e, Sec. 14, W. A. Johnson, Ussery 1, se c, sd 325 ft. T 7s, R 10e, Sec. 8, Bryan Oil Co., Childs 1, ne se sw, sd 660 ft. T 8s, R 1e, Sec. 13, Geo. Pace et al, Burkhart 1, ne c nw, dr 1800 ft.

MISSISSIPPI

Completion

HINDS COUNTY (Jackson Dist.)—Love Pet. Co., Taylor 1, 34-6-1e... ¶5 2455

CLAY COUNTY—Ohio Oil Co.'s Cantrell 1, ne ne 16-15-5e, elev 270 ft, 13⅜ cas 1389 ft, standardizing in hd lime, td 2834 ft.

COVINGTON COUNTY (Collins Dist.)—Miss. Gulf O&G Co.'s Pope 1, nw ne 35-8n-16w, 12½ cas 126 ft, top Wilcox 2100 ft, sd in sandy shale 3000 ft. United Prod. Corp.'s McIntosh 1, sw ne 5-8n-16w, elev 321.5 ft, 12½ cas 805 ft, dr sand 2803 ft.

CHICKASAW COUNTY—Hightower & Golsan's Fleming 1, 20-13s-3e, sd 1562 ft.

GRENADA COUNTY—Carter Oil Co.'s Dubard 1, nw nw 18-22-4e, killed fresh water flow near surface, sd wo fuel in gumbo, td 1175 ft.

HINDS COUNTY (Jackson Dist.)—Mrs. Ella Rawls Reeder's State Land 1, sw nw 25-6-1e, sd 2905 ft. Jackson O&G Co.'s Central Cotton 1, sw nw 3-5-1e, dk. Love Pet. Co.'s Maley 1, se nw 15-5-1e, elev 257.3 ft, top Midway shale 2387 ft, top chalk 2437 ft, 6⅝ cas 2487 ft, cemtd bottom to shut off sw after well made heavy oil, sw and 3 mil ft gas for several weeks, td 2495 ft. Pirtle & Flint's Payne 1, sw sw 27-6-1e, rig. Southern Pet. Co.'s Wilson 1, se ne 23-6-1e, sd 20 ft. Miss. Pet. Co.'s Solvent 1, sw sw 14-5-1w, top Midway shale 2970 ft, cemtd bot of hole to sdtr drill pipe, collar and bit, sr td 3042 ft. Howard Oil Co.'s Jackson College 1, nw nw 9-5-1e, 12½ cas 15 ft sd. Atkisson et al's Downey 1, ne ne 27-6-1e, rig. Gulf Ref. Co.'s McLaurin 1, sw ne 30-6-2e, top Midway shale 2392 ft, 9-inch cas 2466 ft, top chalk 2485 ft, bailing to test showing little sw and oil with much gas, td 2515 ft. Cane River O&G Co.'s Kabbes 1, ne sw 15-5-1e, elev 262 ft, top Midway shale 2435 ft, top chalk 2541 ft, cemented with 400 sacks cement to regain lost returns at 3270 ft in hd sand and red beds. Love et al's Ridgeway & McGhee 2, ne nw 2-5-1e, elev 271 ft, rig. Miss. Pet. Co.'s Baptist Orphanage 2, ne se 28-6-1e, cemtd 10-inch cas 632 ft. Feazel O&G Co.'s Garrett 1, se ne 2-5-1e, elev 274.3 ft, top Midway shale 2347 ft, 6⅝ cas in shale, td 2427 ft. Love Pet. Co.'s Taylor (later known as Homestead 1), se nw 34-6-1e, elev 314 ft, top Midway shale 2342 ft, cemtd 6⅝ cas 2420 ft, top Midway chalk 2450 ft, est 5 mil ft gas, td 2455 ft; Bob Taylor 1, ne sw 34-6-1e, sp. Love et als' Payne 1, sw sw 27-6-1e, rig. United Prod. Corp.'s School Board 1, 16-6-1e, dk pat.

JASPER COUNTY (Bay Springs Dist.)—Bay Springs Pet., Inc., J. H. Keyes 1, nw ne 21-2n-10e, cemtd 15½ cas 104 ft, sd.

KEMPER COUNTY (De Kalb Dist.)—W. W. Jones' Rosenbaum 1, lcn not given, dk.

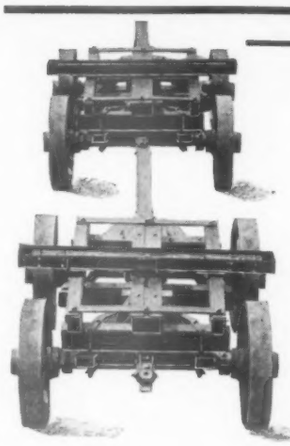
LA FAYETTE COUNTY—F. E. West et al's May 1, 22-10-1w, rig.

MADISON COUNTY (Jackson Dist.)—Central O&G Co.'s Cameron 1, se se 11-9n-1e, 10-inch 201 ft, cemtd 6⅝ cas 1532 ft (est. depth), td 1550 ft, boiler blew up as drilling of plug started, wo new boiler.

MONROE COUNTY (Amory Dist.)—Amory Dev. Co.'s Bourland 1, sw ne 2-13-19, sd in brown sand 3007 ft. P. J. McAlpine's Cowart 1, ne sw 2-12-19, 10-inch 694 ft, ur 8¼ inch cas at 1180 ft to re-land at 1190 ft, td 1262 ft. Associated Royalties' School Board 1, sw se 16-15-17, sd 60 ft. Amory Pet. Corp.'s Harris 1, nw nw 18-13s-17w, sp.

NESHOBA COUNTY (Philadelphia Dist.)—Collins et al's Carter 1, se se 29-11n-12e, sp 12½ cas 97 ft, dr clay 880 ft.

RANKIN COUNTY (Jackson Dist.)—Love et al's Muse 1, se se 32-7-4e, 12½ cas 600 ft, sd in sandy shale and bldrs 1240 ft. Love Pet. Co.'s Moore 1, se nw 28-6-2e, sd 900 ft. Millstein O&G Co.'s Gammill-Hartfield 1, sw ne 6-5-2e, top Midway shale 2410 ft, top chalk



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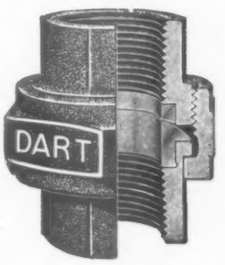

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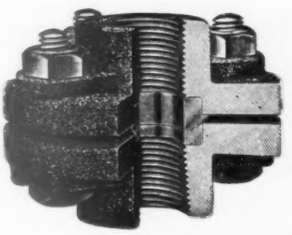

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2496 ft, 7-inch O D cas 2476 ft, hf fluid with 200 ft heavy oil at top according to owners, td 2500 ft. Pioneer O&G Co.'s Ragland 1, sw sw 12-5-1e, dk. Ganzel et al's Stallings 1, ne ne 25-5-1e, 12½ cas 246 ft, top Midway shale 2579 ft, top chalk 2628 ft, tested 16 fourbles sw in 9 minutes through ds 2628-49 ft, dr chalk 2675 ft.

WARREN COUNTY (Vicksburg Dist.)—Dixie Pet. Co.'s Clark 1, nw nw 6-16n-5e, 12½ cas 77 ft, dr gummy shale 950 ft. Vicksburg O&G Co.'s Dornbusch 1, sw ne 8-18n-5e, sd 1600 ft.

WEBSTER COUNTY — Cumberland Oil Co.'s Henley 1, 15-21-11, ta 1865 ft.

WINSTON COUNTY (Louisville Dist.)—Miss. Drilling Co.'s Scarbrough 1, nw nw 15-13n-14e, dr gummy shale 2051 ft.

YALABOUSHA COUNTY (Water Valley Dist.)—J. D. Collett et al's Blackmer 2, sw nw 14-11s-4w, 12½ cas 103 ft, dr 2351 ft.

EAST TEXAS

Completions

PANOLA COUNTY (Bethany)—
United Prod. Corp., Baker 1, B. C. Jordan sur. ..... ¶10 4720

HARRISON COUNTY—
Hunter et al, Daugherty 1, W. B. Burris sur. ..... * 3568

HARRISON COUNTY — Hunter et al's Daugherty 2, W. B. Burris sur, dr 700 ft. Corona Pet. Co.'s A. J. Bohler 1, S. F. Sparks sur, dk pat.

MARION COUNTY—Trammell et al's Hussey 1, Chas. Lockhart sur, elev 282 ft, top chalk 1771 ft, claim oil show in hd chalk near bot hole, cemtd 8¼-inch cas 1514 ft, trying go over broken ds with 6-inch cas, td 1878 ft. Rondeau & Hindman's McGaugherty 1, W. J. Wills sur, dk. Hindman et al's Lindsey 1, Alex Albright sur, rig.

PANOLA COUNTY—Knott et al's Marion Durham 1, Chas. Haley sur, 6⅝ cas 2670 ft, 5 3/16 cas 2977 ft, tested 50,000 ft gas, arr set 1-inch siphon, making sw head every 3 hours, td 2988 ft. Smith et al's Hunt 1, Albert Johnson sur, dk. Creighton & Hart's Kyle 1, J. Tippett sur, elev 349 ft, top halk 1444 ft, top Blossom 2216 ft, blew out making mud, gas and sw, sd wo 3704 ft. Bell et al's Burnett Lbr. Co. 1, S. B. Hendrick sur, elev 186 ft, 8⅛ cas 2027 ft, sd in sand 3086 ft. Warren & Dawes' McNeese 1, A. Booker sur, dk. Dillon & Bradham's Baldwin 1, Hampton West sur, 12½ cas 43 ft, dr rock 700 ft. United Prod. Corp.'s Steele 17, B. C. Jordan sur, lcn (to go to Trinity). Neff et al's Brumble 6, B. C. Jordan sur, dk (to go to Trinity). Natural Gas Prod. Co.'s H. H. Alvord 1, B. C. Jordan sur, 10-inch 1160 ft, dr lime 4319 ft. Daisy O&G Co.'s Rucks Hrs. 1, Jno. Palmer sur, 12½ cas 180 ft, top chalk 1352 ft, dr chalk 1687 ft.

SABINE COUNTY—Loring Oil Co.'s Nona Mills Lbr. Co. 1, Jas. Mason sur, ta 4803 ft.

SHELBY COUNTY — Chaparral Oil Co.'s Holt 2, Matthew Moore sur, sd wo rotary, td 3111 ft.

MOUNTAIN STATES

COLORADO

ADAMS — N. M. Slatt's 1, se 27-26-64w, ready to re at 2500 ft.

ARAPAHOE — McDebb Cr. Co.'s Fitzsimmons 1, 7-45-55, stand 5746 ft. Merrett et al's U. P. 1, nw 17-5-64, stand 1600 ft, hfw.

BACA—A. R. Jones Oil & Optg. Co., Boice Cattle 1, 22-34-42w, dr at 4410 ft.

EL PASO—Utemore Synd., Cannon 1, ne 10-16s-66w, stand 1100 ft.

HUERFANO—Parker Club, Fee 1, se 4-28s-68w, sd 4116 ft.

JEFFERSON—Ruby Hill O&G Co.'s Braden 1, se 24-4s-59w, test gas prod at 3818 ft.

LAS ANIMAS—Oklahoma Dr. Assn's Radcliffe 1, ne 28-28-52, sd 100 ft.

LA PLATA—McGarr Pete Co.'s Pinon Mesa 1, ne 34-33n-12, prep to spud. Klem Pete Corp.'s Olbert 1, se 9-25n-12w, dr 3100 ft. Murchison Oil Co., Doescher 1, nw 29-33n-13w, sd 1225 ft.

LINCOLN—Kelley Oil Co.'s State 1, 36-14n-57w, prep to res 3380 ft.

MOFFAT—Mtn. Fuel Supply's State 2, tract 37-12-100, dr 1640 ft. S. H. Keoughan et al's State 1, sw 16-4n-101w, sd 2950 ft.

MONTEZUMA—Haller et al's Haller 3, ne 33-36n-14w, prep to plug back from 902 ft.

MORGAN—Ind. Terr. Illum. Oil Co.'s State 1, ne 16-1n-57w, dr 3972 ft.

PUEBLO—Kuykendall Oil Corp., Boescher 1, 7-22-66, stand at 1320 ft. Anchor Oil Co.'s Easley 1, sw 35-22s-67w, dr 550 ft.

PARK—So. Park Oil Co.'s Milligan 1, se 13-9s-76w, try to so water, td 1665 ft. So. Park O&G Co.'s Eache 1, ne 6-9s-76w, prep to res.

ROUTT—Gorham et al's Omholt 1, 29-4n-87w, sd 115 ft.

WELD—Eastman Oil Co.'s Steele 1, ne 14-2n-67, sd 165 ft.

WASHINGTON—Middlemist Oil Co.'s Middlemist 1, se 14-4-56, stand 1724 ft.

NEW MEXICO

CHAVES—Warman Oil Trust, Siebert 1, ne 27-13-24, stand 2035 ft.

DE BACA—Matador Oil Co.'s Wood 1, se 6-4n-20e, res at 3005 ft.

HARDING—Milwaukee Synd., Kerlin 1, se 34-21n-30e, drlg at 100 ft.

LUNA—Angelus Oil Mining Ass'n 1, se 20 21s-10w, dr 5935 ft.

McKINLEY—J. W. Halsell's Santa Fe 1, 17-18-9w, sd 3255 ft. Wms et al's A. T. S. A. 1, se 19-18n-8w, sdtr 1900 ft. United Kern Pete Inc., 1, sw 1-18n-11w, lcn.

OTERO—Ernest et al's 1, se 20-25s-7e, wtg for equip. at 1328 ft.

QUAY—Silverstein et al's Wetzel 1, 29-12n-23e, stand 175 ft.

RIO ARRIBA—Berrenger et al's Hartman 1, ne 8-29n-7w, sd 825 ft. San Juan Pete Co., Gov't 1, se 14-30n-7w, sd 250 ft. Governador Oil Co.'s 1, 12-29n-7w, sd 751 ft.

SAN JUAN—Dorothy Oil Co.'s Terwilliger 2, 29-30-9w, stand 1750 ft. Kutz Canon O&G Co.'s Day 1, se 20-28n-10w, dr 2125 ft. Childers Dr. & Pr. Co.'s Westwater 2, nw 23-31-

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Box 1852, Tulsa, Oklahoma, U. S. A.

16w, sd 2525 ft. Rio Grande Dev. Co.'s 2, 9-29-11, prep to res 1380 ft. Continental Oil Co.'s Rattlesnake 24, 1-29n-19w, fsh 4750 ft. J. B. Witt O&G Co.'s Magnum 1, se 33-29n-11w, lcn. San Juan Leaseholds, Bowman 3, ne 30-30n-15w, dr 2540 ft.

SAN MIGUEL—Pioneer O&G Co.'s Thunderbird 1, nw 14-15n-16e, wait 2340 ft. Starr Oil Co.'s Adams 1, ne 25-17n-16e, dr 3360 ft. Cibola Pete Co.'s Crown 1, se 9-13n-14e, wtg for fuel at 810 ft. Hershfield Dev. Co.'s Cabra Springs 1, ne 12-12n-22e, stand 1542 ft. Kull et al, Cherryvale 1, ne 34-17n-21e, spud 25 ft.

TORRANCE—Williams et al's Staplin 1, ne 16-8n-10e, stand 1643 ft. J. B. Witt O&G Co.'s Kutchem 1, 12-17-7e, stand 1465 ft.

VALENCIA—Acme Oil Co.'s N. M.-Ariz. Land Co.'s 1, dr 5071 ft. Harlan et al's Harlan 1-A, 5-6n-2e, dr 4000 ft.

MONTANA

BIG HORN—Continental Oil Co., 21-6s-35e, to dd from 3400 ft.

CASCADE—Andover Oil Co.'s Floweree 1, se 20-21-2w, sd 1405 ft. Lone Star Mont. Oil Co., McLean 1, se 13-21-3e, bldg rig.

CHOTEAU — Williston-Shelby O&G Co., Flack 1, se 12-28-11e, dr 2820 ft.

FERGUS—Northern State Oil Co.'s Woodward 1, se 2-14n-24e, res at 1500 ft. Melton Corp., 24-21n-17e, cas to 2800 ft. Pownal Oil Co., 24-19-11, spd.

GLACIER—Fulton Pete Corp.'s Blackfeet 1, ne ne 28-36n-12w, dr out cem and res 1184 ft. B. & H. Oil Co.'s Haines 1, se 2-34-6w, sdtr lost pipe, td 2761 ft, oil show. Jeffries-Hoerr's Dawson 1, ne 7-31-12w, repair machine, td 3000 ft.

GOLDEN VALLEY—Texas Pacific's 1, sw 21-8s-21e, fsh bit out, dr ahead below 2350 ft.

JUDITH BASIN—Newton-Waddingham, se 15-16n-10e, dr bel 1110 ft.

LIBERTY—Northland O&G Co.'s Yurman 1, 32-33-5e, sd 3475 ft. Sunburst, McLaren 1, se 9- 37-6e, sd 3115 ft. Utopia Oil Co.'s Eleanor Ass'n 1, sw 11-33-6e, td 3190 ft. Perkins et al, Brown 1, nw 24-35-4e, sd 150 ft.

POWDER RIVER—Creel et al, 7-8s-50e, dr 1200 ft.

ROSEBUD—Prairie O&G Co.'s 1-X, 26-10-39e, dr gray shale at 2190 ft. Prairie's 1, Contract 4, 28-10-38, tools recovered at 1355 ft.

TETON—Andover Oil Co.'s Carlson 1, 5-24-4w, stand 150 ft.

TOOLE—Liquid Gold Oil Co.'s Roberts 1, ne 25-36-12, ur 8½-inch to shut off water at 1570 ft. International Royalty Holding Co.'s Henry 1, sw 26-35-36, wso, dd from 2550 ft. A-1 Petroleum Co., se 24-36-1e, wait for fuel, td 200 ft.

YELLOWSTONE — Peter Antonioli, 21-2n-25e, rig up.

WYOMING

BIG HORN—Westland Oil, Inc., 24-54-95, gas at 510 ft. Wisconsin Holdings, 5-55-97, sd 665 ft. Yellowstone Pete Co.'s 1, 7-57-97, sd 4080 ft.

CARBON—Midwest Refining Co.'s U. P. 27, 11-20-81, sd 1810 ft. Pete Expl. Co. of Calif., 29-23-89, dr 1000 ft.

CONVERSE—Converse O&G Co., 27-33-72, sd 1410 ft. Pioneer Oil Co., 5-31-70, to dr new test.

FREMONT—Texas Prod. Co.'s State 1, 36-44-95, sdtr 6⅝-in at 4294 ft, td 4485 ft. P. & R. 1, 33-34-92, sd 4906 ft. Yellowstone Oil Co.'s 1, 15-39-92, td 185 ft. Ward O&G Co.'s 28-34-90, gas show 1500 ft. Maghee et al, 2, 35-33-99, dr 800 ft.

LINCOLN—Mountain Oil Corp.'s 1, 36-25-116, td 1500 ft. Wyo. Prod. Co., 14-24-113, dr bel 1000 ft.

NATRONA—Summit Oil Co., 21-33n-80w, dr 1225 ft. Midwest's 11, nw 32-34n-77w, dr 5200 ft. Cuyler Oil Co., 23-36n-85w, rig. Golden West Oil Co., 36-36-81, ready to res 1242 ft.

NIOBRARA—West Virginia Synd., 7-35-62, td 987 ft, cas trouble.

PARK—Resolute Oil Co., 17-57-101, sd 8250 ft, wait for orders.

SWEETWATER—Vermillion Oil Co.'s 1, 16-12-99, sd 3500 ft.

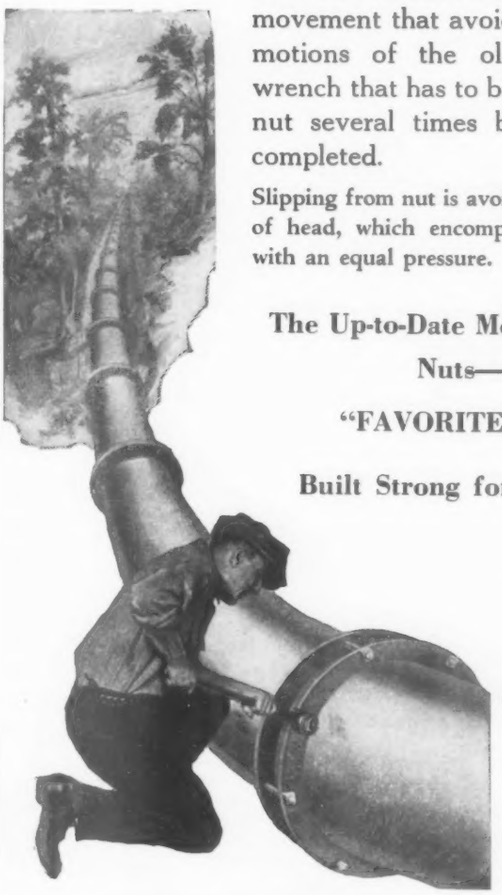
UINTA—Park City O&G Co., nw 6-15-113, dr bel 2400 ft.

WASHAKIE—Dakota-Wyoming Oil Co., 6, ne 24-47-90w, small show at 200 ft, to be cased and dd. Ohio Oil Co., lot 14, sec 19-45-92, dr water well.

Cut Out the Time-Wasting Motions of Nut Turning

By Using the

FAVORITE reversible ratchet WRENCH



which turns nuts with the quick ratchet movement that avoids the time-wasting motions of the old style open end wrench that has to be removed from the nut several times before operation is completed.

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Name..... Address.....

New Equipment for the Field

MACHINERY - TOOLS - CATALOGS - BOOKS

▼ ▼ ▼

Burt Fiber Air Filter

Burt Air Filter Corporation

Burt Air Filter Corporation, Akron, Ohio, announces the Burt fiber air filter which offers something new in the field of air filters. It is distinctly a dry type filter and employs for its filter media a pad which is made up of layers of cloth fiber of various densities. It is made of several variations as to size of cell and resisitance of filter media.

Burt Air Filter

The construction of this cell, tobether with the kind of material used for this filter media makes it possible to recondition and clean this cell by means of the ordinary industrial type vacuum cleaner.

The fiber air filter illustrated is 20 inches square and is built for unit installations. No frames are required because the cell is rigidly constructed from steel and is designed so the individual units can be bolted together into an air-tight installation.

The filter media is made from a combination of jute and cloth fibers clamped together into a pad and supported by a metal frame. The layers of jute and cloth are arranged in layers of varying density with the coarser woven material on the air intake side of the filter. The larger particles of suspended matter are removed at the point and the finer woven layers on the air outlet side remove the smaller bits of dust.

A bulletin completely describing the design, construction and working arrangement of this new filter will be mailed upon request to the manufacturers.

American Tie-down Flange

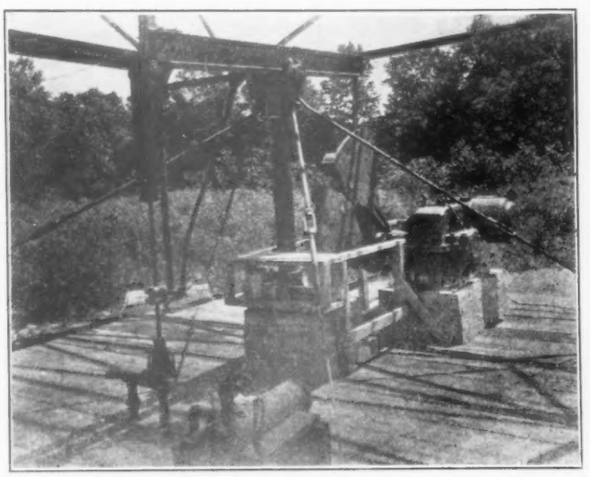
American Iron & Machine Works

American Iron & Machine Works, Oklahoma City, announces the American tie-down companion flange, made for the use of both screw and flange type gate valves. It is grooved according to the packing ring or gasket, depending upon the make of the gate valve.

This flange is made of one piece cast steel to withstand high pressure, and eliminates the use of the old style casing clamps, thereby saving five inches of space.

Tiedown Flange

It is cast with ears which allow use of both bolts and stirrups. It is designed to permit connections to be removed down to the companion flange without having to relieve the hold-down bolts on the gate valve.



Westinghouse Pumping Unit

Electric Pumping Unit

Westinghouse Electric & Manufacturing Company

Westinghouse Electric & Manufacturing Company, East Pittsburgh, describes the new line of Westinghouse-Nuttall electric oil well units, for pumping only, as adding both to the appearance and performance of a pumping installation without eliminating any elements which would interfere with continuity of production.

These units, designated as the OP-300 line and comprised of several definite ratings to meet various production requirements of three to 40 horsepower, 12 to 72-inch strokes, 10 to 30 strokes per minute, embody the motor, control, and gear in one complete, integral, weatherproof unit that may be set on a foundation any place without a special bedplate, ready for immediate pumping. Once the unit is set in place it remains to connect only three leads to the power supply and to join the polished rod to the hanger on the beam.

The motor is reduced to its bare elements of rotor and primary core with coils; the bearings, brackets, frame, shaft and couplings are eliminated. The primary core with coils is loosely pressed into and welded to the cylindrical motor housing which is cast integral with the top half of the case. The rotor is pressed and keyed onto an extension of the high speed pinion shaft supported by two bearings on opposite sides of the case.

A splash system lubricates all bearings. Oil is placed in the case to the proper level at the time of installation and then the unit requires no attention for months.

The features which permit varying the number of pumping strokes either electrically, by using motors of different horsepower and speeds in the same housing, or mechanically, by changing the small high speed set of gears which are made accessible by removing only a small cover plate.

Alloy steel shafts running on anti-friction bearings carry the gears. The intermediate and high speed gears are of cast steel whereas the high speed change gear set and all pinions are forged of steel. The high and intermediate gear

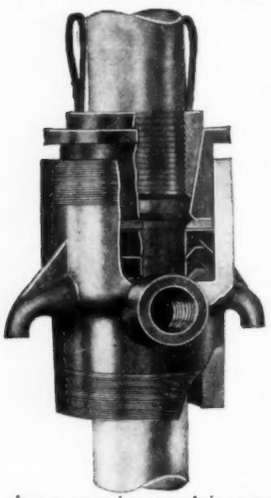
sets are of the helical type, oil treated; the slow speed set is of the spur type given the BP "tough-hard" treatment.

These units are for pumping only, service applicable in any field using portable cleaning and pulling equipment.

American Casing Suspender

American Iron & Machine Works

American Iron & Machine Works, Oklahoma City, has developed the American casing suspender and blowout preventer for use in oil fields where there is more than one sand, as in Oklahoma City and numerous other fields.



This equipment is designed to prevent blowouts between strings of casing and to allow the suspension of the casing at setting points other than at the bottom of the hole. It is equipped with a special composition packing, prepared to resist salt and sulphur water.

The body of the suspender is a one-piece bowl to permit a tie-down to be made to the ears without damage to the packing because of connections necessary as in some of the older types. It is threaded on the top so that in case connections above are damaged in any way they way be removed and connections made on the casing bowl.

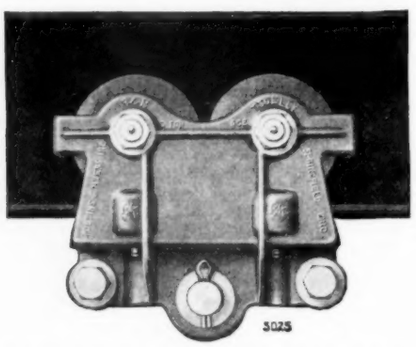
A swedge nipple may be supplied to thread on to the casing suspender to size of pipe that has been run, allowing the gate valve to be placed as an additional safety factor.

The manufacturer will furnish information as to hydrostatic pressure and other details of interest to users.

New Ace Trolley

Robbins & Myers, Inc.

Robbins & Myers, Inc., Springfield, Ohio, hoist and crane division, announces the new Ace trolley in plain and geared types ranging from one-half to 20-ton capacity.



The Ace trolley has a heavy ribbed malleable iron frame, chilled and crowned trolley wheels of high tensile strength Aremite with treads machine ground to a perfect circle, and the R. & M. combination of eight Timken and four Hyatt roller bearings. Safety lugs and wheel guards are included in the design to prevent the trolley from falling in the event of wheel or stud failure. Smaller sizes of this trolley are adjustable to seven I-beam sizes. Axel studs are drilled for Zerk-Alemite lubrication, and felt washers on both sides of the trolley wheels serve to retain the lubricant and keep out dust.

Bulletin 5025, covering the complete line of Ace trolleys, is now ready for distribution by the manufacturer, along with other literature describing Robbins & Myers hand and electric hoists and cranes of every type.

Tank Cleaner

Turco Products, Inc.

Turco Products, Inc., Los Angeles, has developed a new product, Turco-Petmusol, to provide a more modern method of cleaning tanks. It offers a dual cleaning action; that of emulsifying the lighter ends of the oil and deflocculating the heavy ends. The makers state that this action results in greater efficiency where a heavy, gummy deposit is encountered, whether it be in a heat exchanger, an absorption tower, or a storage tank.

The equipment used to handle the cleaning solution consists of a portable solution tank mounted on a trailer, two small double acting pumps, and an easily dismantled scaffold having three decks and mounted on rubber wheels. Also piping and hose to carry the solution in and out of the tank is used.

The scaffold is placed inside the tank and assembled in a horizontal position on the floor. It is then raised to a vertical position, on its wheels, by means of a rope dropped through a man-hole in the roof. The floor area immediately around the scaffold is dyked in with sand and sheet metal strips to act as a reservoir for the solution as it leaves the section of the wall being cleaned. The fluid carrying the removed residium flows out of the tank into a settling reservoir, where the slight cooling results in the oil floating to the surface to be skimmed. The solution is then pumped back into the main solution tank to be heated to a temperature of 212 degrees F. and used over again. A pressure of 100 to 125 pounds is maintained on solution line.

"K-5" and "K-6" Concrete Breakers

Sullivan Machinery Company

Sullivan Machinery Company, 400 North Michigan Avenue, Chicago, has recently brought out two new improved concrete breakers. One is the "K-5" 72-pound, 25¼ inches long, overall, and the other is the "K-6," 80-pound, 28½ inches long, overall.

The "K-5" buster is intended for all ordinary work, while for unusually heavy conditions such as smashing the hardest steel re-enforced concrete, the "K-6" with striking block or anvil construction is available.

In these tools, emphasis has been laid on simplicity, rugged construction, cutting power, and ease of handling. A new feature is the novel design of front head and steel retainer. This retainer is of the cam type without springs or trunnion, and enables the steel to be locked easily by hand or foot pressure, holding it rigidly in position, but permitting release when desired.

These new busters are described in Bulletin 87-G, just published, a copy of which will be sent to readers upon request.

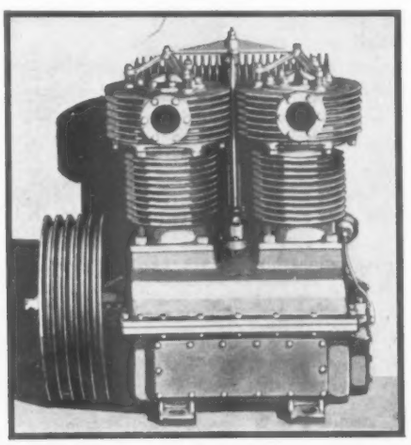
▼ NEW EQUIPMENT FOR THE FIELD ▼

Davey Compressor

Davey Compressor Company

The Davey Compressor Company of Kent, Ohio, has recently placed the Davey air cooled compressor on the market. This compressor under test delivers 142 cubic feet of air per minute.

The compressor heads and manifolds are of aluminum alloy, cast with deep fins to give greater radiating area. High temperatures generated inside the compressor head are instantly passed through the aluminum walls to prevent any "piling-up" of heat within the compressor.



The design is to prevent the compressor valves from becoming fouled due to carbon formation. Air pressures remain at a constant high efficiency, tools are kept comfortably cool and the output of work held up at steady volume.

A leading feature is the light weight, due principally to mechanical simplicity. The compressors are furnished in four convenient mountings, one each for "Caterpillar" and McCormick-Deering tractors, one for trailers, and one for skids.

The compressor, shown in an accompanying illustration, is operated from a power takeoff from the tractor motor. When mounted on trailers or skids, power is furnished by Hercules motor, with transmission through two sets of V-type multiple belts, which absorb reverse torque action.

The manufacturer will supply more detailed information on this compressor upon request to headquarters at Kent, Ohio.

New East Texas Map

Gulf Coast Engineering Company

Gulf Coast Engineering Company, Houston, has completed an interesting map, particularly in view of recent important developments, showing in detail a large section of East Texas and of Western Louisiana.

The map shows towns, railroads, surveys, townships, ranges and sections within the various counties and parishes, and all proven or prospective oil and gas areas. It is on the scale of one inch equals 4000 varas, and extends from the Gulf of Mexico northward to the Red River, taking in several counties in Arkansas. On the west its edge goes through the Texas Counties of Chambers, Liberty, Hardin, Polk, Angelina, Nacogdoches, Rusk, Gregg, Upshur, Morris, and Red River. On the east the map extends into the Louisiana Parishes of Cameron, Jefferson Davis, Allen, Vernon, Rapides, Natchitoches, Bienville, and Claiborne, and into Union and Ouachita Counties, Arkansas.

The map is 54 inches wide and 11 feet long. Cloth copies are priced at $50 each, and paper copies at $35.

The same company also has another map, known as the East Texas map, on the same scale, with length of five feet and width of 3½ feet, with the Boggy Creek field of Anderson and Cherokee Counties as the center. Being on the same scale as the large map above mentioned, the two may be combined into one map. This East Texas map runs on the northwest corner into Hunt County, on the southwest into Madison County, while its east edge coincides with the above larger map. The East Texas map on cloth sells for $25 and on paper for $20.

Derrick Safety Belt

Irvin Air Chute Company

Irvin Air Chute Company, Glendale, California, has recently introduced to the oil country a derrick belt made of harness webbing commonly used in the manufacture of parachutes.

Irvin Derrick Safety Belt

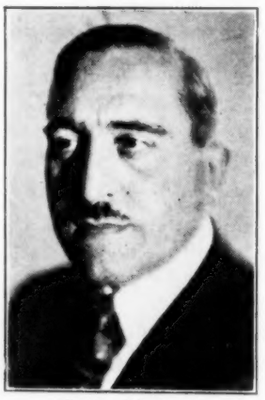
This belt is approximately half the weight of leather belts of the same size. The metal fittings are of alloy steel and are tested to 7000 pounds while each belt is tested to 2500 pounds before being assembled. The total weight of the completed web belt is only two pounds.

The design is such that the belt can be put on or taken off with a single snap of the buckle.

By communicating with the manufacturers at the address given above, complete details on this new product are obtainable.

Texas Creosoting Company, Orange, Texas, announces the appointment of Lester B. Manley, of Miami, Florida, as sales manager. Manley is a native of Kansas and a graduate of the University of Kansas law school. He has spent several years promoting the use of and selling creosoted materials.

Manufacturer and Supply Dealer Notes



C. B. MURPHY

Fairbanks, Morse & Company announces the appointment of C. B. Murphy as manager of the stationary Diesel engine sales with headquarters in Chicago.

Mr. Murphy's experience, after he finished his schooling at Purdue University in 1911, has been almost entirely with the Fairbanks-Morse organization. For the first two years of his business career he was connected with the engineering department of the Illinois Central Railroad. In 1913 he became a general line salesman in the Florida west coast territory and since the introduction of the F-M Diesel in 1915 he has devoted his time to that one product exclusively with two years' time out in 1918 and 1919 for service in the Naval Aviation Ground School at Minneapolis. In 1924 he was transferred to the executive offices as assistant to the manager of the Diesel engine division and in 1929 was transferred to Washington as special representative of that division.

Elliott Core Drilling Company, Los Angeles, announces the appointment, effective January 1, of B. W. "Bart" Gillespie, as manager of the export department, succeeding H. A. Kassebaum, who recently resigned. Gillespie formerly served Elliott Core Drilling Company as superintendent of California service. He has covered the California territory for his company in various capacities for seven years.

E. A. Spencer, Jr., succeeds Gillespie following a number of years in California oil fields with the Elliott Company. These changes in the company's personnel are announced by F. C. Merritt, general manager of the Elliott Core Drilling Company.

Henry L. Doherty & Company has acquired the gas equipment division of Columbus Heating and Ventilating Company, manufacturers of warm air furnaces with factories located at Columbus, Ohio, for Surface Combustion Company.

Following the acquisition of Chapman-Stein Company by Surface Combustion Company, September 18, this purchase marks another step in the expansion program being followed which will increase the activities of this Doherty owned company to cover all branches of the manufacture of gas heating and cooling equipment for industrial and domestic purposes.

The Columbus Company will come under the management of Frank H. Adams, vice president and general manager of Surface Combustion Company, with headquarters at Toledo. No changes are contemplated in local personnel or management.

Kirk-Morrow Iron Works Company, Iola, Kansas, and Tulsa, announces appointment of Val R. Wittich, Jr., as sales representative in charge of its New York office. Mr. Wittich has had considerable experience in handling export business in connection with oil country products. His office is located at 150 Broadway in New York. Mr. Wittich will be assisted in his work by one of the staff engineers of the company when occasion requires.

Hercules Supply Company, Fort Worth, announces the opening of a new store at Kilgore, Texas, carrying a complete line of oil well supplies, including pipe, casing and machinery. This store is in addition to the stocks now carried by this company at Van, East Texas.

Happy Belting Company, Tulsa, announces the opening of a Texas office at Fort Worth. A. F. Nixon is in charge of the new office which is located at 503 Petroleum building. Mr. Nixon is vice-president and sales manager of the company. All of Texas, including the Gulf Coast territory, will be covered from the Fort Worth office.

E. A. SPENCER

B. W. BART

A. F. NIXON

▼ MANUFACTURER AND SUPPLY DEALER NOTES ▼

Bradford Motor Works in future will sell products manufactured by A. H. Neilson Company of Tulsa. Salesmen of Bradford Motor Works met in Tulsa the week of January 18 for their annual conference and the announcement of the new line was made at that time. The Neilson line will include sucker rod hooks, tubing spiders, elevators and other equipment.

Link-Belt Company, Chicago, announces the appointment of McFarland Tractor & Equipment Company of St. Joseph Missouri, as its agent for the sale of Link-Belt cranes, shovels and draglines for the territory of Atchison and Doniphan Counties, in Kansas, and 17 counties in Northwestern Missouri. The new territorial agents will be glad to furnish Link-Belt Company's Book No. 1095, covering this equipment, on request.

Rose-Hoskins Supply Company, Houston, announces the opening of a branch store at Beaumont, Texas, carrying stocks of Goodyear mechanical rubber goods, Youngstown pipe, Stockholm fittings, Powell valves and Page leather goods. Location of the new branch, which is in charge of B. R. McLemore, is 1365 Crockett Street. This company was organized 14 months ago, opening a store at 910 Rice Street, Houston, of 15,000 feet of floor space, served by Houston Belt & Terminal Railroad. H. C. Hoskins, George H. Rose and R. P. Goodman, officials of the company, as well as B. R. McLemore, all were connected for many years with E. L. Wilson Hardware Company, Houston, prior to the purchase of that organization by The Peden Company.

Oil Center Tool Company, 924 Adelle Street, Houston, announces the publication of a catalog on O. C. T. high pressure forged steel fittings and slush pump liners and rods. The catalog is illustrated and carries prices. It is made up in loose-leaf form for convenient handling. A copy will be sent to interested operators upon request to the address shown above.

"Trapshooter" Riley and His Big Bit

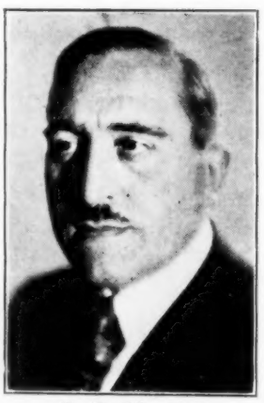
E. A. "Trapshooter" Reilly, contractor, Milam building, San Antonio, Texas, is shown with what he calls the largest rotary bit ever made. This photograph was taken recently in the Humble, Texas, field. He had the bit manufactured by Texas Iron Works of Houston on order through Continental Supply Company. This bit is described as weighing 1000 pounds, width 18½ inches and length six feet.

J. R. Dollerup, vice president, Reed Roller Bit Company, Houston, and Mrs. Dollerup sailed from San Francisco January 30, on the President Jefferson, for Japan, which is the beginning of a trip around the world. A farewell party was given the travelers by W. R. Martin and E. L. Decker, of Martin-Decker Corporation, at Long Beach, California, after which they were taken to San Francisco by W. R. Martin in his five-passenger cabin plane. Those in the picture, reading from left to right, are: W. R. Martin, Mrs. J. R. Dollerup, J. R. Dollerup, Mrs. E. L. Decker, Bobbie Lee Decker, E. L. Decker, Mrs. H. J. Blythe, H. J. Blythe, Mrs. W. R. Martin, Harvey Martin, pilot

Engineers' Society of Western Pennsylvania has recently published a booklet on Stratigraphy of Southwestern Pennsylvania by J. French Robinson, geologist and engineer for Peoples Natural Gas Company of Pittsburgh, Pennsylvania. This booklet contains a number of logs of the various counties in Southwestern Pennsylvania showing the sections of geological formations from which oil has been produced in that section with reference to the coal-bearing strata.

Detailed explanation has been omitted, the logs and tables carrying complete information on the formations in the different townships with regard to depths. The top and bottom of each formation is given. Altogether the booklet contains 13 tables and maps covering a vast amount of detail which will prove beneficial to readers interested in this particular section.

Manufacturer and Supply Dealer Notes



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Mr. Murphy's experience, after he finished his schooling at Purdue University in 1911, has been almost entirely with the Fairbanks-Morse organization. For the first two years of his business career he was connected with the engineering department of the Illinois Central Railroad. In 1913 he became a general line salesman in the Florida west coast territory and since the introduction of the F-M Diesel in 1915 he has devoted his time to that one product exclusively with two years' time out in 1918 and 1919 for service in the Naval Aviation Ground School at Minneapolis. In 1924 he was transferred to the executive offices as assistant to the manager of the Diesel engine division and in 1929 was transferred to Washington as special representative of that division.

Elliott Core Drilling Company, Los Angeles, announces the appointment, effective January 1, of B. W. "Bart" Gillespie, as manager of the export department, succeeding H. A. Kassebaum, who recently resigned. Gillespie formerly served Elliott Core Drilling Company as superintendent of California service. He has covered the California territory for his company in various capacities for seven years.

E. A. Spencer, Jr., succeeds Gillespie following a number of years in California oil fields with the Elliott Company. These changes in the company's personnel are announced by F. C. Merritt, general manager of the Elliott Core Drilling Company.

Henry L. Doherty & Company has acquired the gas equipment division of Columbus Heating and Ventilating Company, manufacturers of warm air furnaces with factories located at Columbus, Ohio, for Surface Combustion Company.

Following the acquisition of Chapman-Stein Company by Surface Combustion Company, September 18, this purchase marks another step in the expansion program being followed which will increase the activities of this Doherty owned company to cover all branches of the manufacture of gas heating and cooling equipment for industrial and domestic purposes.

The Columbus Company will come under the management of Frank H. Adams, vice president and general manager of Surface Combustion Company, with headquarters at Toledo. No changes are contemplated in local personnel or management.

Kirk-Morrow Iron Works Company, Iola, Kansas, and Tulsa, announces appointment of Val R. Wittich, Jr., as sales representative in charge of its New York office. Mr. Wittich has had considerable experience in handling export business in connection with oil country products. His office is located at 150 Broadway in New York. Mr. Wittich will be assisted in his work by one of the staff engineers of the company when occasion requires.

Hercules Supply Company, Fort Worth, announces the opening of a new store at Kilgore, Texas, carrying a complete line of oil well supplies, including pipe, casing and machinery. This store is in addition to the stocks now carried by this company at Van, East Texas.

Happy Belting Company, Tulsa, announces the opening of a Texas office at Fort Worth. A. F. Nixon is in charge of the new office which is located at 503 Petroleum building. Mr. Nixon is vice-president and sales manager of the company. All of Texas, including the Gulf Coast territory, will be covered from the Fort Worth office.

E. A. SPENCER

B. W. BART

A. F. NIXON

▼ MANUFACTURER AND SUPPLY DEALER NOTES ▼

Bradford Motor Works in future will sell products manufactured by A. H. Neilson Company of Tulsa. Salesmen of Bradford Motor Works met in Tulsa the week of January 18 for their annual conference and the announcement of the new line was made at that time. The Neilson line will include sucker rod hooks, tubing spiders, elevators and other equipment.

Link-Belt Company, Chicago, announces the appointment of McFarland Tractor & Equipment Company of St. Joseph Missouri, as its agent for the sale of Link-Belt cranes, shovels and draglines for the territory of Atchison and Doniphan Counties, in Kansas, and 17 counties in Northwestern Missouri. The new territorial agents will be glad to furnish Link-Belt Company's Book No. 1095, covering this equipment, on request.

Rose-Hoskins Supply Company, Houston, announces the opening of a branch store at Beaumont, Texas, carrying stocks of Goodyear mechanical rubber goods, Youngstown pipe, Stockholm fittings, Powell valves and Page leather goods. Location of the new branch, which is in charge of B. R. McLemore, is 1365 Crockett Street. This company was organized 14 months ago, opening a store at 910 Rice Street, Houston, of 15,000 feet of floor space, served by Houston Belt & Terminal Railroad. H. C. Hoskins, George H. Rose and R. P. Goodman, officials of the company, as well as B. R. McLemore, all were connected for many years with E. L. Wilson Hardware Company, Houston, prior to the purchase of that organization by The Peden Company.

Oil Center Tool Company, 924 Adelle Street, Houston, announces the publication of a catalog on O. C. T. high pressure forged steel fittings and slush pump liners and rods. The catalog is illustrated and carries prices. It is made up in loose-leaf form for convenient handling. A copy will be sent to interested operators upon request to the address shown above.

"Trapshooter" Riley and His Big Bit

E. A. "Trapshooter" Reilly, contractor, Milam building, San Antonio, Texas, is shown with what he calls the largest rotary bit ever made. This photograph was taken recently in the Humble, Texas, field. He had the bit manufactured by Texas Iron Works of Houston on order through Continental Supply Company. This bit is described as weighing 1000 pounds, width 18½ inches and length six feet.

J. R. Dollerup, vice president, Reed Roller Bit Company, Houston, and Mrs. Dollerup sailed from San Francisco January 30, on the President Jefferson, for Japan, which is the beginning of a trip around the world. A farewell party was given the travelers by W. R. Martin and E. L. Decker, of Martin-Decker Corporation, at Long Beach, California, after which they were taken to San Francisco by W. R. Martin in his five-passenger cabin plane. Those in the picture, reading from left to right, are: W. R. Martin, Mrs. J. R. Dollerup, J. R. Dollerup, Mrs. E. L. Decker, Bobbie Lee Decker, E. L. Decker, Mrs. H. J. Blythe, H. J. Blythe, Mrs. W. R. Martin, Harvey Martin, pilot

Engineers' Society of Western Pennsylvania has recently published a booklet on Stratigraphy of Southwestern Pennsylvania by J. French Robinson, geologist and engineer for Peoples Natural Gas Company of Pittsburgh, Pennsylvania. This booklet contains a number of logs of the various counties in Southwestern Pennsylvania showing the sections of geological formations from which oil has been produced in that section with reference to the coal-bearing strata.

Detailed explanation has been omitted, the logs and tables carrying complete information on the formations in the different townships with regard to depths. The top and bottom of each formation is given. Altogether the booklet contains 13 tables and maps covering a vast amount of detail which will prove beneficial to readers interested in this particular section.

Squeaks From the Bull Wheel

▼ ▼ ▼

The wife of a man who had enlisted in the navy handed the pastor of a church the following note: "Peter Bowers having gone to sea, his wife desires the prayers of the congregation for his safety."

The minister glanced over it hurriedly and announced: "Peter Bowers, having gone to see his wife, desires the prayers of the congregation for his safety."—Tit-Bits.

"Say, paw, the teacher asked me to find the greatest common divisor."

"Great heavens, is that thing still lost? The teacher had me hunting for it when I was a kid."

The professor was delivering the last lecture of the term. He told the students with much emphasis that he expected them to devote all their time to preparing for the final examinations.

"The examination papers are now in the hands of the printer," he concluded. "Now, is there any question you would like answered?"

Silence prevailed for a moment, then a voice piped up:

"Who is the printer?"—Selected.

He was nattily dressed. His hair was just so, and he had such a congenial look.

"I am seeking a position," he confided to the railroad chief, "a position where the work will be light and will not interfere with my clothes. And, of course, I shall expect a considerable salary."

The grizzled veteran sat back and looked him over. "You bet," he answered. "You've got the right idea. I'll keep you in mind, and when I find two jobs like that, you can have the other."

Could I see the man who was arrested for robbing our house last night

This is very irregular. Why do you want to see him?

I don't mind telling you. I only want to ask him how he got into the house without awakening my wife.

Customer—I don't like the flies in here.

Waiter—Sorry, sir, there'll be some new ones in tomorrow.

Did you notice how my voice filled the hall last night?

Yes, dear; in fact, I noticed several people leaving, to make room for it.

Johnny, don't you want to go to heaven?

Not yet.

The lady over there wants to know if this woolen jumper will shrink. What shall I tell her?

Does it fit her?

No, it's too large.

Then certainly tell her it'll shrink.

The doctor says he will remove my appendix for $1200.

Oh, Sam, I'd much rather have a new auto.

"Why is Mrs. Wombat disappointed?"

"She wrote for a Congressional Record."

"Well?"

"She thought it was something she could play on the phonograph."

A lawyer made his way to some scaffolding where a gang was working, and called for Michael O'Neill.

"Who's wanting me?" inquired a voice from above.

"Mr. O'Neill," the lawyer shouted, "did you come from Drogheda?"

"I did."

"And was your mother named Kathleen and your father Michael?"

"They wor."

"It is my duty, then to inform you that your Aunt Mary, who married the millionaire, Richly, has died in New York, leaving you a fortune."

There was a short silence, and then a commotion up above.

"Are you coming, Mr. O'Neill?" the lawyer called.

"In wan minute," was the answer, "I'm just stopping to wallop the foreman."

Ned: "Ive got to see Jack about one-twenty."

Ted: "Well, I'd like to see him about two twenties and a five."

"Ignor-rance is an aufu'thing. Ma gr-randfather once stayed awa' frae a banquet because he didna' ken wha' 'gratis' meant on the invitation. Next mor-rn they found the auld mon dead at the dictionar-ry in the Fr-ee Library."

"Here's my bill," said the surgeon. "Wish you would pay down $100 and then $25 a week."

"Sounds like buying an automobile," said the patient.

"I am," replied the surgeon.

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The blades are self-sharpening, achieved by concave formation and hard facing, permitting wear on the back of the blade to retain the cutting edge.

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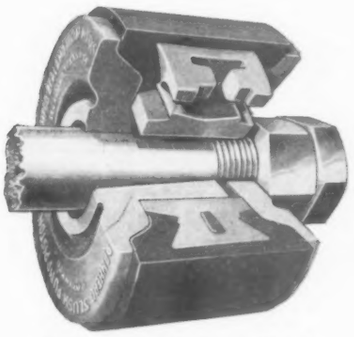

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Lukens Steel Company, New Orleans, Louisiana

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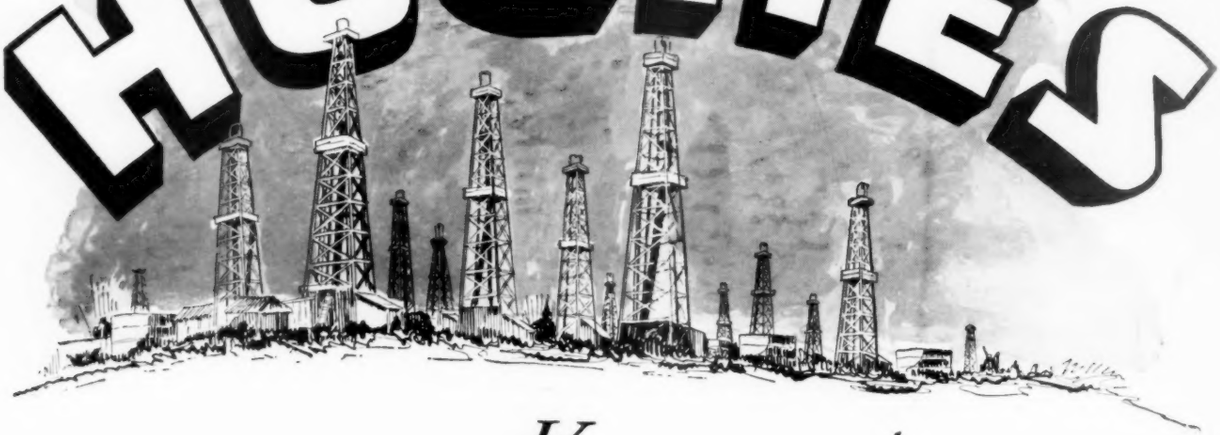

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